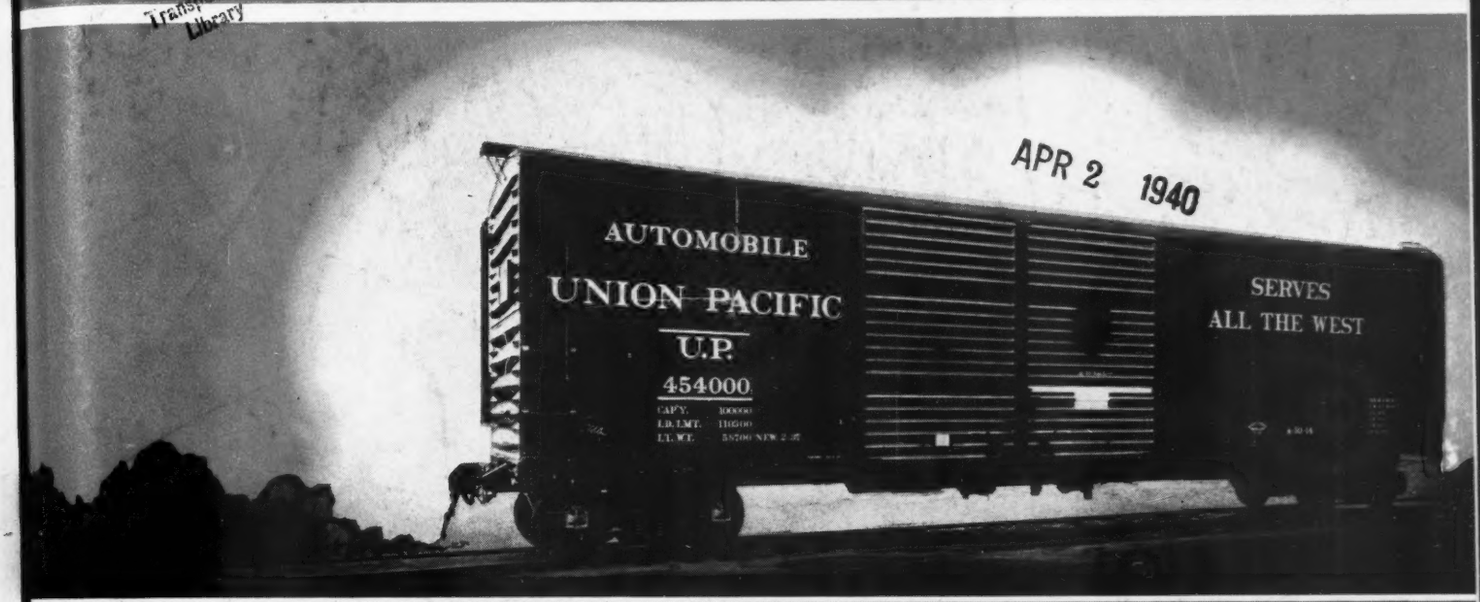
MARCH 30, 1940

# Railway Age

*Founded in 1856*

Transportation Library




APR 2 1940

# 6,100 Union Pacific Box Cars Take YOLOY REDUCING TREATMENT

## . . . Lose 6,030,800 Pounds for Life!

● Yoloy high tensile steel scores another victory over dead weight. During 1937 and 1938 the Union Pacific Railroad built 1,400 box cars, and 700 automobile cars; in 1939—1,900 box cars and 100 High Speed Merchandise Cars for Passenger Train Service, and in 1940 are building 1,500 box cars and 500 automobile cars. The sides of all of these cars, supplied by the Youngstown Steel Door Company, were made of Yoloy.

Dead weight savings total 3,015 tons or approximately 911 pounds for each box car, and 1,306 pounds for each automobile car. Normal life and service of these cars has been increased due to the high corrosion resistance of Yoloy—4 to 6 times greater than the carbon steels.

Yoloy was developed by Youngstown to provide increased strength with lighter weight. Yoloy can be welded by the arc, resistance or gas processes; has excellent corrosion fatigue properties, also greatly increased impact resistance over previously used materials.

Similar savings can be effected with all types of transportation equipment resulting in greater profits for operators.

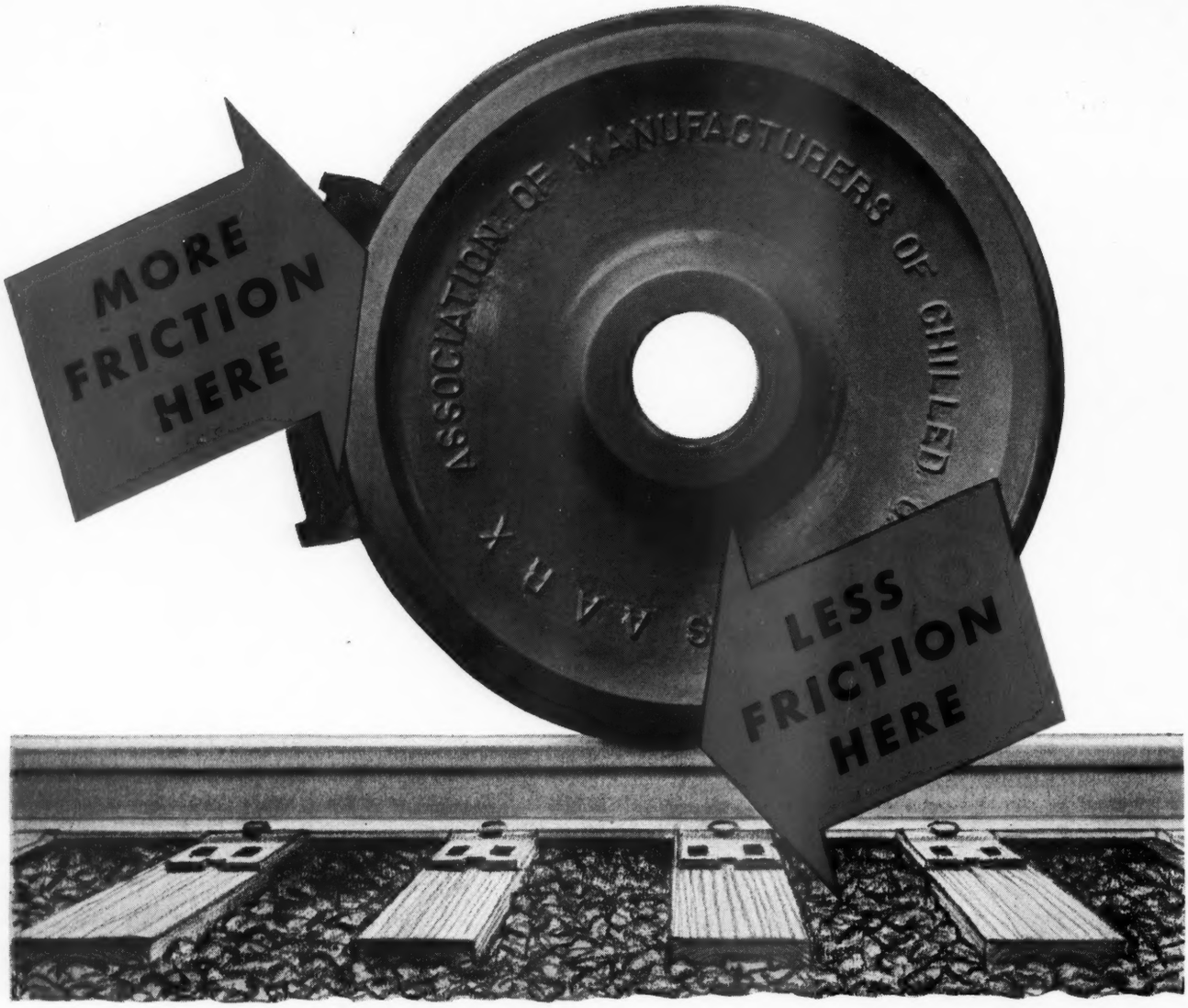
*Yoloy High Tensile Steel is available in sheets, strips, plates, bars, shapes, manufacturer's wire, welding wire, seamless pipe, and electric weld pipe.*

YOLOY YOUNGSTOWN STEEL

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon and Alloy Steels

General Offices - YOUNGSTOWN, OHIO




**The greater coefficient of friction between wheel and brake shoe which Chilled Wheels possess materially reduces strain on brake rigging and trucks, gives greater capacity to air cylinder and reservoirs and reduces stopping distance. Combine this with the materially reduced friction (adhesion) between Chilled Wheel and rail and you have two more of many reasons for Chilled Wheel economy.**

***4 Savings with Chilled Car Wheels:***

1. **Lowest cost per mile.**
2. **Increased rail life.**
3. **Increased brake shoe life.**
4. **Reduced machine shop costs.**

# ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

**230 PARK AVENUE,**
**NEW YORK, N. Y.**

**445 N. SACRAMENTO BLVD.,**
**CHICAGO, ILL.**

**ORGANIZED TO ACHIEVE:**
**Uniform Specifications**
**Uniform Inspection**
**Uniform Product**

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RAILWAY AGE

# The Fact-and-Figure Route to Prosperity

The largely unsung inventors and engineers and those who saved and invested capital in what the inventors and engineers provided—not the philosophers, the statesmen and the generals (even the good ones)—are the people who made America the richest of all nations, with largest income per capita; and they are the people who will restore prosperity, if it is restored. Such in substance is the declaration—not of a spokesman for the engineering profession or the manufacturing industry—but of one of the country's great economists.* And he does not just make the statement; he uses the engineer's own method of careful analysis of accepted figures to prove it.

### Arguing Without Facts Settles Nothing

Most people argue theoretically about the conditions which make the country rich or keep it poor, instead of looking up the unquestionable figures which alone can settle such controversies. The physical sciences were for centuries dominated by the orators and the arguers. In ancient times the "scientists" guessed that all matter was composed of such elements as air, fire and water. And they could dispute just as hotly over which of these elements was the most important as nowadays politicians and "captive" economists contend that high wages make prosperity. Mankind existed through about 2,000 years of endless disputation about scientific questions and in that period none of these questions was settled and little or no progress was made in man's conquest of nature.

But some scientists who were more curious than combative began looking for material evidence on disputed points—evidence which could be weighed and measured and counted. And weighing and measuring and counting quickly answered questions which argument and oratory could never answer. So, gradually, intelligent men turned to the measurers, counters and weighers for answers to scientific questions, giving no more heed to the mere arguers. Thus genuine science was born. This dispassionate scientific method, as soon as it was generally accepted and applied in the field of matter, began to yield a rich harvest. Man began to learn how to subject inanimate matter to his purposes. From this factual approach has come all our modern invention and the vast increase in material well-being which the past century and a half has witnessed.

### 140 Years of Progress, 10 Years of Decay

Now, however, for ten years, the improvement in well-being has ceased. Our *per capita* income is less than it was a decade ago. Our engineers and inventors are as eager as ever and even more able, to advance human comfort and wealth—but their hands are tied, because the science of well-being (i. e., economics) is more largely than ever before in modern times at the mercy of arguers and demagogues, who have achieved political power. Until comparatively recently there was some excuse for this condition—basic quantitative facts about much of our economic life were lacking. But assiduous research over the past two decades by a host of *quantitative* economists (among whom Mr. Snyder is outstanding) has remedied this deficiency. Actual figures are now available which show the combination of material factors which went on increasing our national wealth for 140 years *up to 1930;* and there are also figures to show what has been lacking since 1930, the lack of which has impoverished the nation since that time. These figures, with the obvious inferences to be drawn from them, are set down by Mr. Snyder in his book. They should make the demagogues shudder—because these facts, if taken over by technicians and other hard-headed individuals who deal in quantities and ratios instead of in theories, and "sold" to the people, will give these hard-headed men the power over the economic machine now exercised so maladroitly by politicians.

### The Forces Which Enriched U. S.—and What Has Been Done to Them

Mr. Snyder has cold figures to prove many little-understood peculiarities of the economic machine, which functions well and enriches us or functions poorly and starves us. Only a few can be mentioned here, and here they are:

> The phenomenal increase in national wealth and income which has occurred in this country has not been due in the slightest degree to "improved efficiency" of labor. Increased national wealth and income have resulted solely from new

* Carl Snyder, for many years economist for the N. Y. Federal Reserve Bank, in his new book "Capitalism the Creator"—published by the Macmillan Co., New York. Price, $3.75.

inventions and the investment of capital in machines which economize human labor.

The increase in primary horsepower employed in industry has gone on at practically the same rate as the growth in physical product.

A dollar of new capital investment is needed in industry for every dollar's worth of increased physical production; and unless the increase of capital investment occurs the increase of production does not occur.

The source of the new capital which prior to 1930 enabled industry each year to increase its productivity (and thus the well-being of every American) was not, to any important degree, the "savings of the people"—but rather the undistributed profits of large corporations and the incomes of the very wealthy. The "little fellow" cannot afford to take a chance with his small savings (and most "little fellows" don't save, anyhow). The big corporations and the "economic royalists," who can afford to take chances and who can still eat while they are waiting to get their bait back, are the people who put up the "venture capital" which is principally responsible for a rising standard of living.

### Killing the Goose

For ten years the incomes of corporations and individuals who could have used them to improve the well-being of the people as a whole have been subject to political attack—hence the lack of new investment and of any improvement in our national wealth and income.

The distribution of wealth and income among individuals and among the various factors of production ("capital," "labor," etc.) are the result of natural laws—and political and union activity to increase "labor's share" has no noticeable effect in this direction; although such politico-union activity may result (and often has resulted) in a decrease in the *total amount* of wages paid.

The curves of railway wage payments, investment, "production" (i. e., ton-miles) and revenues showed the same remarkable, and parallel, upward trend as those of other industry until about 1910, when government regulation became the primary factor in the direction of railroad policy. Since that time, the curves picturing the status of the railroad industry first flattened out and then declined. Says Mr. Snyder: "A tragic example of the effects of economic ignorance and insanity."

The above are only a small sample of some of the conclusions which Mr. Snyder reaches—not by argumentation but by an analysis of quantitative data. His method suggests an opportunity for technical men to shed light and achieve power in a realm now largely dominated by politics and propaganda—provided they will recognize the peculiar characteristics of economic data, and hence avoid the absurd errors into which the Technocrats have fallen. Even if Mr. Snyder's evidence is insufficient to support all the conclusions he reaches—nevertheless he has pointed the true way to economic progress: the method of science and of reason unadulterated with prejudice and emotion.

### Mr. Snyder's Method Applied to R. R. Problems

It is a method which is applicable not only to the larger national economic questions but to a host of unsolved railroad problems, such as (for instance) the optimum level for competitive rates, the wage policies which will produce the greatest total income for railway labor, the comparative economy of repairing old equipment or buying new, the optimum level of passenger fares, the probable benefits of consolidation or "co-ordination" and many others. Quantitative information is available (or can be secured) on all these questions—and analysts using such data without preconceptions can give satisfactory answers, while entire generations of commentators whose skill lies only in the manipulation of theories and words will never give them.

Capitalism is simply the system of ownership and management of property by private investors untrammeled by excessive government regulation, expenditure and taxation. No nation in all history ever has really prospered—i. e., provided a large and increasing income for all classes of an increasing population—under any other system. Under this system the United States for 140 years—1790 to 1930—prospered more than any other nation ever did. It has not prospered at all—has actually retrogressed—during the last 10 years because during this decade government has not let capitalism work normally—in fact, apparently has been trying to abolish it. The *only* way the country's people can recover their prosperity is by compelling government to reduce its interference with business, its spending and its taxing enough to enable capitalism to begin operating normally again.

# Progress in Federal Grade Crossing Work

The solution of the highway-railroad grade crossing problem has made remarkable strides during the last five years, particularly as the result of the stimulus that has been given to grade crossing elimination and protection work through federal participation. But while much has been done in these recent years, it is only too evident that with more than 235,000 grade crossings still remaining in the country, the final solution is yet a long way off. In fact, in view of the developments in power and speed of both passenger-carrying and trucking vehicles on the highways, and the generally increased tempo of railway operation, involving markedly higher speeds of both passenger and freight trains, the grade crossing problem presents greater hazards to both highway and railroad traffic today than ever be-

fore, a situation that can be overcome only by continued large-scale financial assistance of federal and state agencies.

Whatever may have been the attitude of the public in the past relative to the eliminating of the hazards at grade crossings, it now recognizes that this is a major public responsibility, brought about largely by the rapid expansion of hard-surfaced highways on a nation-wide basis, and the phenomenal growth of passenger vehicle and truck traffic on these highways. This attitude crystallized rapidly early in the thirties. In fact, it was this changed attitude on the part of the public which provided the initial impetus for federal participation in grade crossing separation and protection costs in 1933, when the National Industrial Recovery Act of that year, Title *II*, authorized the states to apply to grade separation and protection any amount of their allotments from the $400,000,000 highway appropriation provided for in that law.

Through this initial step and subsequent appropriations by Congress, remarkable strides have been made in federal grade crossing work, an activity which has been headed up and co-ordinated within the various states by the Bureau of Public Roads. For the efficient and effective manner in which the program has been carried out there has been almost universal acclaim. In fact, in spite of certain early difficulties encountered in organizing and carrying out so extensive and varied a program, the work of the Bureau in this regard has been considered by many as the most constructive item of federal public works in recent years, and this opinion grows stronger with the continued planning of the Bureau for a further highly systematic approach to the grade crossing problem on a nation-wide, long-range basis, an approach which involves detailed surveys of the relative importance of all of the remaining grade crossings in the country for the purpose of establishing their priority for elimination or protection.

# *Rate Regulation for Whose Benefit?*

"A law is merely a statement of hopeful anticipation," says Nelson B. Gaskill, the great legal authority; and probably no piece of legislation has ever proved the truth of that observation more convincingly than the Motor Carrier Act, 1935.

In that law lies the "hopeful anticipation" that chaotic competitive conditions might be removed from transportation—to the benefit of the shipping and consuming public and, in the long run, to the competing transportation agencies themselves.

But nobody close to the facts would contend that this "hopeful anticipation" has been realized. There is today as much, or even more, wasteful competition *which somebody is paying for* than there was when this corrective measure was enacted. A law, to produce beneficial results, (again quoting Gaskill) requires "voluntary acquiescence in both the objective and the method," combined with "the regrettable necessity for coercion of the dissenting elements."

Can anyone contend that economical transportation (i. e., encouraging each transport job to be done by the agency which can do it at the lowest cost) is fostered by the conditions set forth in the following table?

RAIL AND TRUCK RATES VERSUS RAIL AND TRUCK COSTS

| | R. R. and Truck Rates | | | | | Truck Costs | | R. R. Costs |
|---|---|---|---|---|---|---|---|---|
| Miles | (a) cents | (b) cents | (c) cents | (d) cents | (e) cents | (f) cents | (g) cents | (h) cents |
| 50 ..... | 47 | 24 | 65 | 36 | 13 | 8 | 23 | 7 |
| 100 ..... | 62 | 31 | 90 | 50 | 16 | 12 | 27 | 8 |
| 200 ..... | 80 | 40 | 123 | 68 | 21 | 20 | 35 | 10 |
| 300 ..... | 96 | 48 | 147 | 81 | 25 | 29 | 44 | 13 |
| 400 ..... | 109 | 55 | 172 | 95 | 28 | 36 | 51 | 15 |
| 500 ..... | 122 | 61 | 196 | 108 | 33 | 45 | 60 | 18 |
| 600 ..... | 135 | 68 | 220 | 121 | 36 | 52 | 67 | 20 |
| 700 ..... | 149 | 75 | 244 | 134 | 39 | 60 | 75 | 22 |
| 800 ..... | 160 | 80 | 263 | 145 | 43 | 68 | 83 | 24 |
| 900 ..... | 171 | 86 | 282 | 155 | 45 | 77 | 92 | 26 |
| 1000 ..... | 182 | 91 | 300 | 165 | 47 | 85 | 100 | 28 |

(a) Dckt. 15879, App. E, 1st Class, Plus 10%.
(b) Dckt. 15879, App. E, 4th Class, Plus 10%.
(c) Dckt. 17000, Pt. 2, Zone 3, 1st Class, Plus 10%.
(d) Dckt. 17000, Pt. 2, Zone 3, 4th Class, Plus 10%.
(e) Dckt. 15879, App. E, 6th Class, Plus 5%.
(f) Truck Cost, 12¢ per mi., 4¢ cwt. terminal, 75% loaded, 20,000 lb. loadings.
(g) Truck Cost, 12¢ per mi., 15¢ cwt. terminal, 75% loaded, 20,000 lb. loadings.
(h) Avg. Rail Cost, 20 ton box car loadings, ICC Sta. 3681, Less return on inv.

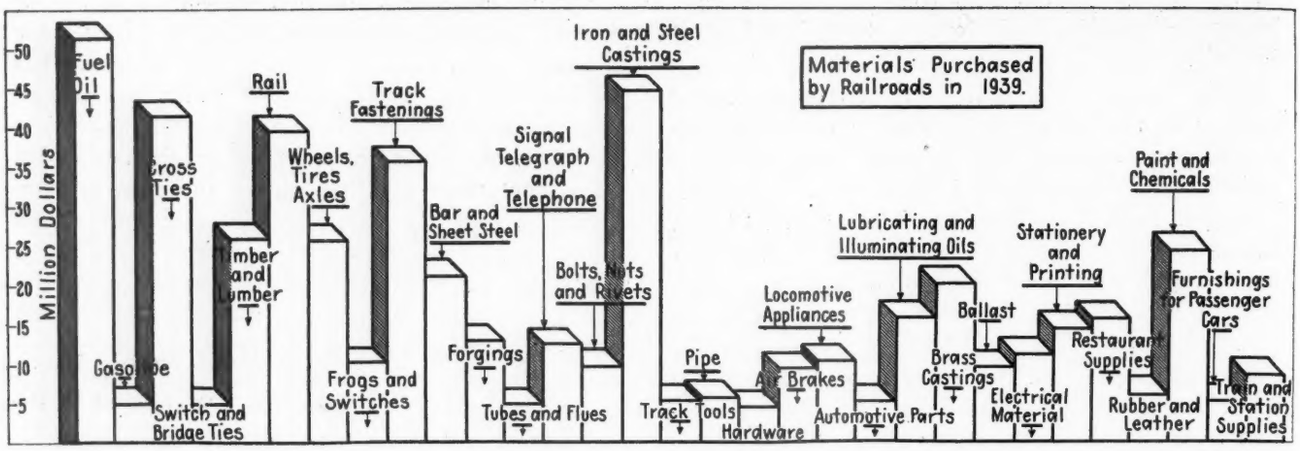
It is obvious that the conditions described in this table *do not promote the public interest in economical transportation,* because they show the uneconomical agency offering the same rate-inducement as the economical agency. Actually *the real conditions are much worse than this table discloses* —because the truck rates, supposedly equal to the railroads', are actually much lower (in that they include free loading and unloading, free c. and d., as the railroad rates do not, and the truck minimum loads are much less than those of the railroads).

The truckers are insisting upon, and the Commission is prescribing, minimum rate bases, which if extended to extremes, will vary as much as 218 per cent for similar service on the same character of traffic. There are even situations where the variation amounts to 538 per cent, where the cost of service does not vary 25 per cent, and where the low rates prescribed are less than 50 per cent of the cost of truck service.

It would be bad enough, from the standpoint of the public interest in economical transportation, if competitive rate regulation permitted high-cost agencies to make rates strictly equal to those of low-cost agencies. But where the supposedly equal rates of the high-cost agencies are actually much lower than those of the low-cost agency—can the conclusion be avoided that **rate regulation is actively fostering waste in transportation?**

The truckers, of course, ought to be far-sighted and public-spirited enough not to follow these practices. Since, however, many of them immediately benefit from such practices, it just isn't human nature to expect them to lead the movement for reform. But what is it to be said for the lack of energy of the railroads in combating these conditions—which have no aspect save a harmful one for them?

Or what about the zealous watch-dogs of the public interest—the I. C. C.? Can they either defend the conditions to which they are assenting—or deny that the law gives them ample power to correct them?




**Expenditures with Commercial Firms made by the Class I, II, and III Railroads for Various Classes of Material and Supplies in 1939. Excludes Material Purchased by Commercial Builders of Locomotives and Cars and Contractors of Construction Projects**

# $1,015,000,000 of Buying for Railroads in 1939

## Purchases made in every state—Short lines and private car companies factors—85-Million dollars in January of this year

BUYING for rail transportation in the United States amounted to approximately $1,014,593,000 in 1939 and totalled approximately $85,188,000 in the first month of this year, according to the latest calculations which have been made by this paper. The total for 1939 (as compiled by the *Railway Age*) includes $770,373,361 of materials, supplies and fuel, exclusive of equipment, purchased by the Class I railroads; $34,752,418 of material and fuel, exclusive of equipment, purchased by short lines and switching and terminal companies not controlled by Class I railroads; $11,133,599 of materials, exclusive of equipment, purchased by the Pullman Company for rail line operations and $9,495,717 of materials, exclusive of equipment, purchased by nine of the leading private car line companies for their rail line operations. It also includes $188,839,000 of new locomotives and cars ordered during the year from equipment builders.

The figures exclude materials and equipment purchased by contractors of railway construction projects and also expenditures made by the railroads for heat, light, electrical energy, land and miscellaneous services. They also exclude purchases made in this country by the railroads of Canada, Mexico and the territories of the United States and purchases made for highway transportation companies subsidiary to or affiliated with rail line carriers.

The totals for 1939 are based on more or less completely classified statements of purchases reported by railroads operating all but 1,582 miles of the Class I mileage, together with special reports made to this paper by approximately 200 short lines and terminals companies and this paper's revised records of orders placed by the railroads in 1939 for new cars and locomotives. Materials purchased represent the delivered cost of materials *received* by the railroads in the calendar year from commercial firms while the purchases of equipment represent the orders for cars and locomotives placed with builders, including Pullman cars, and are valued on the basis of the average price of each type of equipment. Materials and equipment for locomotives and cars to be built in railway shops are included in the materials reported by the railroads except where otherwise noted.

The Bureau of Railway Economics, A. A. R., has completed a compilation limited to Class I roads in which the purchases made by these roads for materials and supplies, exclusive of equipment, are shown to have amounted to $769,314,000, as compared with $770,393,361 reported by this paper, and these figures will be found adjacent to the corresponding figures of this paper in one of the accompanying tables.

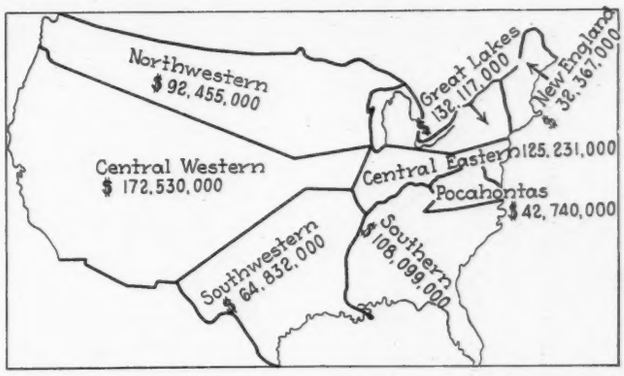
As finally determined, the purchases made last year

**Distribution of Railway Purchases By States—1939**

| | | | |
|---|---|---|---|
| Alabama | $27,048,000 | Nebraska | $6,080,000 |
| Arizona | 466,000 | Nevada | 117,000 |
| Arkansas | 7,139,000 | New Hampshire | 490,000 |
| California | 49,262,000 | New Jersey | 25,055,000 |
| Colorada | 21,979,000 | New Mexico | 3,898,000 |
| Connecticut | 10,463,000 | New York | 52,455,000 |
| District of Columbia | 806,000 | North Carolina | 2,377,000 |
| Delaware | 2,120,000 | North Dakota | 157,000 |
| Florida | 4,138,000 | Ohio | 66,029,000 |
| Georgia | 5,940,000 | Oklahoma | 10,683,000 |
| Idaho | 929,000 | Oregon | 11,626,000 |
| Illinois | 132,839,000 | Pennsylvania | 197,034,000 |
| Indiana | 67,627,000 | Rhode Island | 618,000 |
| Iowa | 6,849,000 | South Carolina | 2,239,000 |
| Kansas | 9,783,000 | South Dakota | 389,000 |
| Kentucky | 19,800,000 | Tennessee | 9,945,000 |
| Louisiana | 9,907,000 | Texas | 26,138,000 |
| Maine | 1,222,000 | Utah | 4,102,000 |
| Maryland | 9,510,000 | Vermont | 476,000 |
| Massachusetts | 12,290,000 | Virginia | 11,678,000 |
| Michigan | 16,029,000 | Washington | 15,190,000 |
| Minnesota | 14,559,000 | West Virginia | 40,295,000 |
| Mississippi | 6,086,000 | Wisconsin | 15,588,000 |
| Missouri | 36,464,000 | Wyoming | 11,081,000 |
| Montana | 5,034,000 | Canada | 1,935,000 |

for rail transportation in this country included $556,404,000 of materials received from manufacturers and $188,838,000 of new locomotives and cars ordered from manufacturers or a total of $745,242,000 of materials and equipment from manufacturers; the remaining $269,351,000 was spent for fuel. The materials received from manufacturers last year by the railroads (all railroads) was an increase of $178,583,000, or 50 per cent, over the corresponding purchases by all railroads in 1938 and the value of new locomotives and cars ordered from manufacturers was an increase of $114,832,000 or 155 per cent over the corresponding contracts in 1938, while the combined purchases of materials and equipment made by all the railroads from manufacturers last year was an increase of $293,415,000 or 68 per cent over the corresponding outlay in 1938. Taking fuel into consideration, the combined purchases made by all the railroads last year were larger by $315,642,000 or 47 per cent than the corresponding buying in 1938.

The all-railroad (Class I, short lines and switching roads) total for 1939 included approximately $204,240,000 of bituminous coal, as compared with approximately $186,472,000 in 1938; approximately $53,170,000 of fuel oil, as compared with $54,635,000 in 1938 and $4,363,000 of gasoline, as compared with $4,160,000 in the previous year.




**Purchases of Material and Fuel, exclusive of Equipment, made by the Class I railroads of each Region — Does not represent the Expenditures made with Dealers of Material *in* Each Region**

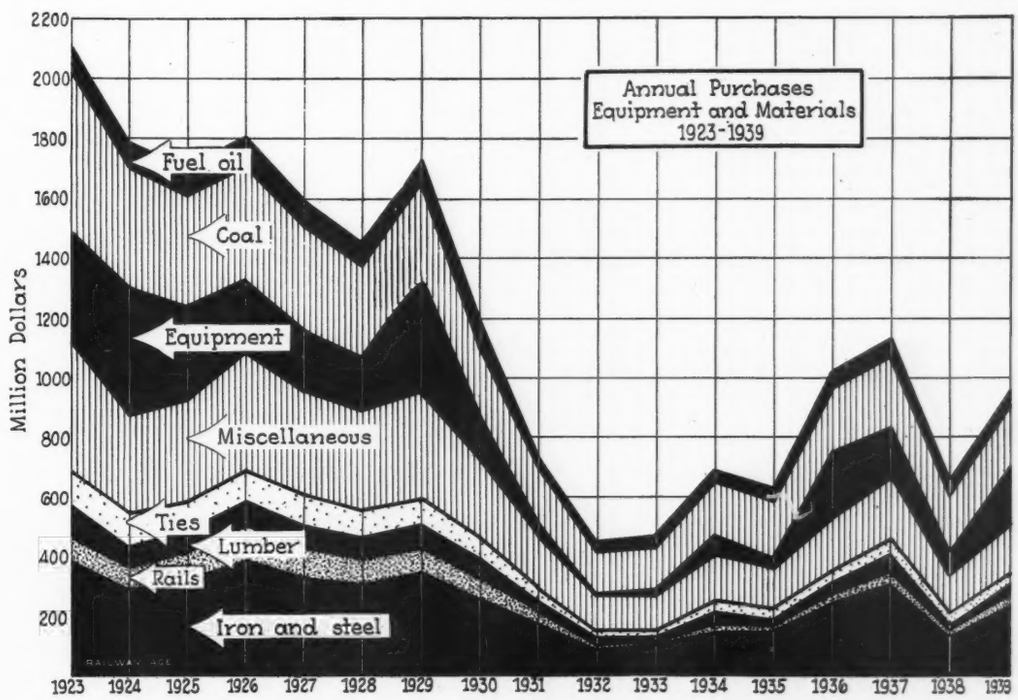
**January Purchases—Materials and Supplies**

| | Fuel (000) | Rail (000) | Crossties (000) | Other Material (000) | Total (000) | Total less fuel (000) |
|---|---|---|---|---|---|---|
| 1929 | $31,275 | $14,400 | $9,819 | $57,006 | $112,500 | $81,225 |
| 1930 | 31,235 | 9,215 | 10,375 | 61,675 | 112,500 | 81,265 |
| 1931 | 23,280 | 5,004 | 7,953 | 34,763 | 71,000 | 47,720 |
| 1932 | 17,500 | 1,652 | 2,400 | 19,948 | 41,500 | 24,000 |
| 1933 | 16,083 | 420 | 1,945 | 16,555 | 35,003 | 18,920 |
| 1934 | 17,320 | 1,542 | 2,063 | 23,873 | 44,798 | 27,478 |
| 1935 | 20,800 | 965 | 2,080 | 21,605 | 45,450 | 24,650 |
| 1936 | 21,859 | 1,107 | 3,027 | 29,656 | 55,649 | 33,790 |
| 1937 | 26,054 | 3,128 | 3,923 | 46,862 | 79,967 | 53,913 |
| 1938 | 22,198 | 1,830 | 3,867 | 26,225 | 54,120 | 31,922 |
| 1939 | 23,102 | 445 | 2,601 | 27,311 | 53,459 | 30,357 |
| 1940 | 25,055 | 3,567 | 4,479 | 47,324 | 80,425 | 55,370 |

Purchases of forest products totalled approximately $74,976,000 in 1939, as compared with $60,435,000 in 1938. In this total was $43,073,000 spent for crossties, as compared with $40,380,000 in 1938; $4,702,000 of switch and bridge ties, as compared with $4,854,000 in 1938 and $24,856,000 of timber and lumber, as compared with $13,059,000, in 1938. Approximately $1,430,000 of the money spent for forest products last year went for poles, posts and piling.

## 289-Million of Iron and Steel

Purchases of materials of iron and steel made last year by *all* the railroads amounted to approximately $288,953,000, as compared with $157,763,000 in 1938. In this total was $39,390,000 of *delivered* rail, as compared with $24,355,000 in 1938. About $3,250,000 of this rail appears to have been second hand. Purchases of wheels, tires and axles last year totalled $26,225,000 as compared with $16,623,000 in 1938. Expenditures for frogs, switches and crossings totalled $10,505,000, as compared with only $5,628,000 in 1938, and about $36,507,000 was spent for track fastenings, as compared with $17,569,000 in 1938. Iron and steel purchases made by the Class I railroads and the short lines last year included $22,589,000 of bar and sheet steel, as compared with $7,658,000 in 1938; approximately $15,327,000 of car and locomotive forgings, as compared with only $5,-




**Trend of Annual Purchases Made by Railroads 1923-1939**

# Classified Purchases, Exclusive of Equipment, by Railroads in 1939—Partially Estimated

| | New England Region | Great Lakes Region | Central (1) Eastern Region | Pocahontas Region | Southern Region | Northwestern Region | Central Western Region | Southwestern Region | Class I 1939 (1) Railway Age | Class I 1939 A.A.R. (2) | Other Roads 1939 Railway Age | All Roads 1939 Railway Age | All Roads 1938 Railway Age | All Roads 1937 Railway Age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FUEL** | | | | | | | | | | | | | | |
| Bituminous coal | $13,673,702 | $44,914,514 | $38,803,412 | $9,451,900 | $32,586,671 | $25,721,488 | $22,861,923 | $5,574,687 | $193,588,297 | $193,079,000 | $10,651,764 | $204,240,061 | $186,472,431 | $233,550,850 |
| Anthracite coal | 83,603 | 2,403,401 | 2,387,299 | 905 | 25,726 | 30,846 | 13,629 | 2,380 | 4,947,789 | 4,925,000 | 1,257 | 4,949,046 | 3,395,183 | 3,980,174 |
| Fuel oil | 592,012 | 851,142 | 845,266 | 48,509 | 1,292,393 | 4,380,034 | 33,966,384 | 10,536,719 | 52,512,419 | 52,334,000 | 657,772 | 53,170,191 | 54,635,454 | 67,175,860 |
| Gasoline | 232,265 | 804,977 | 618,018 | 120,705 | 491,132 | 619,023 | 1,127,616 | 294,823 | 4,308,559 | 4,203,000 | 54,481 | 4,363,040 | 4,160,351 | 5,437,557 |
| All other | 68,044 | 311,663 | 348,162 | 266,469 | 201,257 | 362,319 | 946,124 | 18,263 | 2,522,301 | 2,732,000 | 106,566 | 2,628,867 | 2,620,633 | 3,055,127 |
| Total fuel | 14,649,626 | 49,285,697 | 43,002,117 | 9,888,488 | 34,597,179 | 31,113,710 | 58,915,676 | 16,426,872 | 257,879,365 | 257,273,000 | 11,471,840 | 269,351,205 | 251,284,052 | 303,199,568 |
| **FOREST PRODUCTS** | | | | | | | | | | | | | | |
| Crossties | 678,931 | 6,141,127 | 4,401,103 | 857,253 | 9,949,088 | 6,406,712 | 8,445,858 | 2,878,814 | 39,758,886 | 39,810,000 | 3,315,057 | 43,073,943 | 40,380,037 | 61,577,267 |
| Switch and bridge ties | 99,097 | 511,635 | 443,520 | 202,658 | 1,086,835 | 665,388 | 517,015 | 330,302 | 3,856,450 | 3,948,000 | 845,861 | 4,702,311 | 4,854,728 | 7,069,650 |
| Timber and lumber | 1,113,857 | 3,623,422 | 3,283,146 | 1,023,048 | 4,468,244 | 3,660,590 | 4,104,358 | 3,201,193 | 24,477,858 | 23,786,000 | 378,321 | 24,856,179 | 13,059,309 | 36,351,772 |
| Other forest products | 81,104 | 82,677 | 107,660 | 30,908 | 455,313 | 444,628 | 785,424 | 331,222 | 2,318,936 | 2,427,000 | 25,146 | 2,344,082 | 2,141,136 | 3,782,820 |
| Total forest products | 1,972,989 | 10,358,861 | 8,235,429 | 2,113,867 | 15,959,480 | 11,177,318 | 13,852,655 | 6,741,531 | 70,412,130 | 69,971,000 | 4,564,385 | 74,976,515 | 60,435,210 | 108,781,509 |
| **IRON AND STEEL PRODUCTS** | | | | | | | | | | | | | | |
| Steel rail (new and S. H.) | 1,195,358 | 5,164,096 | 3,460,915 | 2,864,988 | 4,372,825 | 5,763,290 | 12,202,697 | 3,315,917 | 38,340,086 | 38,339,000 | 1,050,281 | 39,390,367 | 24,355,109 | 45,700,532 |
| Wheels, axles and tires | 806,896 | 4,871,639 | 4,624,153 | 1,159,079 | 4,339,657 | 2,412,627 | 5,268,578 | 2,332,222 | 25,814,851 | 25,799,000 | 410,195 | 26,225,046 | 16,623,328 | 31,202,594 |
| Frogs, switches and crossings | 458,632 | 1,752,396 | 1,684,662 | 637,963 | 1,044,602 | 917,079 | 1,919,565 | 772,906 | 9,187,805 | 9,015,000 | 1,318,028 | 10,505,833 | 5,628,149 | 14,015,660 |
| Track fastenings, bolts, spikes, etc. | 893,414 | 6,236,968 | 5,941,868 | 2,527,603 | 3,963,078 | 5,468,243 | 6,972,132 | 3,587,893 | 35,591,199 | 34,736,000 | 916,145 | 36,507,344 | 17,569,897 | 37,224,705 |
| Steel bridges, turntables and struc. | 46,756 | 234,765 | 237,186 | 347,702 | 288,416 | 289,065 | 946,591 | 118,432 | 2,508,913 | 2,523,000 | 569,638 | 3,078,551 | 2,582,514 | 4,227,359 |
| Bar iron and steel, sheets, etc. | 329,476 | 2,539,329 | 6,273,272 | 2,846,484 | 3,608,053 | 1,475,529 | 3,139,097 | 2,042,893 | 22,254,133 | 21,963,000 | 334,553 | 22,588,686 | 7,658,838 | 31,896,103 |
| Forgings, etc., for locomotives | 53,442 | 291,492 | 391,698 | 77,158 | 343,009 | 194,169 | 732,409 | 143,824 | 2,227,201 | 2,953,000 | 111,061 | 2,338,262 | 1,480,907 | 4,112,945 |
| Car forgings, shapes, etc. | 78,964 | 1,804,376 | 1,418,875 | 1,384,221 | 839,066 | 490,083 | 6,193,625 | 671,850 | 12,881,060 | 13,030,000 | 108,358 | 12,989,418 | 3,494,554 | 17,611,581 |
| Flues, tubes and superheat | 137,410 | 1,457,640 | 601,221 | 267,145 | 608,065 | 417,191 | 570,544 | 408,194 | 4,467,410 | 4,541,000 | 91,754 | 4,559,164 | 2,054,057 | 5,904,196 |
| Interlocking and signal material | 616,496 | 2,095,912 | 2,102,865 | 1,292,470 | 1,385,608 | 1,314,290 | 2,769,725 | 869,555 | 12,446,921 | 12,089,000 | 1,032,216 | 13,479,137 | 7,470,958 | 16,573,281 |
| Telegraph and telephone material | 88,388 | 195,279 | 479,813 | 156,712 | 169,638 | 250,675 | 303,456 | 57,045 | 1,701,006 | 1,767,000 | 91,718 | 1,792,724 | 1,903,439 | 2,681,781 |
| Bolts, nuts, washers, etc. | 238,760 | 2,218,895 | 1,845,477 | 511,785 | 1,128,551 | 670,353 | 1,855,967 | 954,755 | 9,424,543 | 9,412,000 | 224,861 | 9,649,404 | 3,850,888 | 12,153,770 |
| Springs | 55,090 | 432,106 | 490,910 | 337,077 | 352,048 | 408,091 | 481,091 | 734,527 | 3,290,940 | 2,996,000 | 98,710 | 3,389,650 | 1,784,149 | 3,954,634 |
| Loco. and car castings, etc. | 737,898 | 6,453,461 | 7,398,617 | 2,381,188 | 4,697,414 | 3,568,827 | 10,517,032 | 6,697,580 | 42,452,017 | 39,587,000 | 1,569,500 | 44,021,517 | 23,201,190 | 64,323,703 |
| Track and roadway tools, etc. | 354,159 | 603,067 | 511,858 | 289,524 | 1,095,584 | 862,798 | 1,321,951 | 612,777 | 5,651,718 | 5,925,000 | 147,405 | 5,799,123 | 3,638,670 | 6,867,111 |
| Machinery and repair parts | 66,308 | 361,132 | 322,451 | 86,561 | 513,989 | 413,543 | 788,887 | 283,679 | 2,836,550 | 2,803,000 | 60,721 | 2,897,271 | 2,509,852 | 5,367,478 |
| Boilers and miscellaneous | 324,725 | 1,743,086 | 828,874 | 763,724 | 908,858 | 712,048 | 1,601,759 | 456,115 | 7,339,189 | 7,215,000 | 261,145 | 7,600,334 | 6,341,577 | 10,039,758 |
| Pipe, iron and steel, and fittings | 259,510 | 658,515 | 1,233,796 | 292,668 | 716,062 | 555,857 | 1,257,882 | 622,340 | 5,596,630 | 5,387,000 | 279,971 | 5,876,601 | 2,780,474 | 7,164,146 |
| Hardware | 118,748 | 377,606 | 856,357 | 170,403 | 578,077 | 581,267 | 626,465 | 527,015 | 3,835,938 | 3,933,000 | 322,478 | 4,158,416 | 2,245,301 | 5,015,093 |
| Hand and small machine tools | 277,219 | 1,642,402 | 1,042,366 | 344,035 | 951,673 | 403,064 | 1,284,251 | 561,800 | 6,506,810 | 6,181,000 | 8,831 | 6,515,641 | 3,432,034 | 8,272,770 |
| Air brake material | 172,776 | 1,332,282 | 1,074,196 | 2,040,407 | 1,175,573 | 550,433 | 1,839,037 | 780,151 | 8,934,855 | 8,611,000 | 245,706 | 9,180,561 | 6,971,792 | 12,119,360 |
| Appliances for locomotives | 374,206 | 2,027,571 | 1,665,602 | 706,138 | 1,768,800 | 1,168,434 | 1,677,648 | 1,368,964 | 10,757,363 | 10,443,000 | 147,224 | 10,904,587 | 6,586,156 | 13,781,679 |
| Automotive materials | 270,457 | 1,117,374 | 525,282 | 56,804 | 267,858 | 665,349 | 1,576,013 | 230,760 | 4,709,897 | 4,720,000 | 765,869 | 5,475,766 | 3,599,649 | 5,629,235 |
| Total iron and steel products | 7,955,088 | 45,611,389 | 45,012,314 | 21,541,839 | 35,116,504 | 29,552,305 | 65,846,402 | 28,151,194 | 278,787,035 | 273,968,000 | 10,166,368 | 288,953,403 | 157,763,482 | 365,344,474 |
| **MISCELLANEOUS** | | | | | | | | | | | | | | |
| Cement | 21,299 | 743,974 | 148,766 | 88,141 | 93,428 | 91,147 | 548,847 | 119,021 | 1,854,623 | 1,837,000 | 32,763 | 1,887,386 | 1,178,909 | 1,959,895 |
| Lubricating and illuminating oils, etc. | 725,257 | 3,047,890 | 2,354,697 | 971,089 | 2,385,331 | 2,129,431 | 3,450,634 | 1,297,885 | 16,362,214 | 16,634,000 | 801,636 | 17,163,850 | 14,810,462 | 19,969,601 |
| Non-ferrous metal | 1,130,460 | 5,086,762 | 2,141,244 | 750,486 | 3,354,581 | 2,075,893 | 3,339,778 | 2,218,505 | 20,097,709 | 20,264,000 | 754,035 | 20,851,744 | 14,848,136 | 28,272,450 |
| Ballast | 369,543 | 1,643,924 | 1,666,024 | 639,311 | 2,124,680 | 498,463 | 1,279,451 | 1,107,058 | 9,328,460 | 9,203,000 | 98,290 | 9,426,750 | 7,496,719 | 11,386,362 |
| Electrical materials | 957,229 | 922,649 | 4,406,226 | 706,270 | 1,213,857 | 947,416 | 1,968,095 | 779,458 | 11,901,200 | 12,630,000 | 632,954 | 12,534,154 | 8,649,804 | 17,812,359 |
| Stationery and printing | 1,037,509 | 2,051,004 | 3,036,663 | 771,822 | 2,072,979 | 1,441,360 | 2,558,804 | 1,036,649 | 14,006,790 | 13,915,000 | 669,105 | 14,675,895 | 13,471,311 | 17,051,954 |
| Commissary supplies | 928,001 | 2,243,817 | 3,116,483 | 273,752 | 1,890,881 | 1,944,203 | 4,767,453 | 1,269,406 | 16,433,996 | 16,476,000 | 96 | 16,434,092 | 16,008,357 | 20,028,189 |
| Rubber and leather goods | 229,879 | 1,298,304 | 1,437,027 | 343,483 | 529,990 | 658,116 | 1,617,353 | 417,088 | 6,531,240 | 6,671,000 | 524,188 | 7,055,428 | 4,479,888 | 8,369,141 |
| Glass, paint, chemicals, etc. | 1,093,081 | 3,249,417 | 5,604,129 | 1,539,005 | 3,518,556 | 3,027,668 | 6,768,584 | 3,121,340 | 27,921,780 | 26,714,000 | 877,940 | 28,799,720 | 21,440,099 | 32,903,739 |
| Arch brick for locomotives | 138,312 | 179,737 | 639,433 | 246,700 | 346,987 | 161,508 | 555,560 | 346,126 | 2,614,363 | 2,549,000 | 63,989 | 2,678,352 | 2,337,406 | 3,052,705 |
| Passenger car trimmings | 222,550 | 1,025,891 | 954,678 | 256,574 | 687,920 | 608,953 | 1,564,569 | 306,942 | 5,628,077 | 5,876,000 | 234,076 | 5,862,153 | 3,815,501 | 10,483,164 |
| Loco., train and station supplies | 369,219 | 1,768,725 | 1,589,901 | 260,056 | 973,760 | 863,966 | 1,533,929 | 658,796 | 8,018,352 | 8,305,000 | 707,924 | 8,726,276 | 6,273,512 | 10,758,810 |
| All other materials | 567,300 | 3,599,084 | 1,886,052 | 2,349,487 | 3,233,386 | 6,163,992 | 3,962,389 | 834,337 | 22,596,027 | 27,028,000 | 3,152,829 | 25,748,856 | 20,023,434 | 30,647,574 |
| Total miscellaneous | 7,789,639 | 26,861,178 | 28,981,323 | 9,196,182 | 22,426,336 | 20,612,116 | 33,915,446 | 13,512,611 | 163,294,831 | 168,102,000 | 8,549,825 | 171,844,656 | 134,833,538 | 212,695,943 |
| GRAND TOTAL—1939 | 32,367,342 | 132,117,125 | 125,231,183 | 42,740,376 | 108,099,499 | 92,455,449 | 172,530,179 | 64,832,208 | 770,373,361 | 769,314,000 | 34,752,418 | 805,125,779 | 604,316,282 | 990,021,494 |
| Per cent of operating revenues | 18.0 | 18.3 | 15.2 | 17.7 | 21.1 | 20.1 | 24.5 | 18.7 | 19.6 | 19.6 | | 19.6 | 16.3 | 23.4 |
| GRAND TOTAL—1938 | 27,691,894 | 99,839,555 | 75,421,050 | 33,071,267 | 84,907,620 | 74,991,134 | 132,726,005 | 54,162,481 | 582,811,006 | 583,282,000 | 21,505,276 | | | |
| Per cent of operating revenues | 17.4 | 15.6 | 11.0 | 15.6 | 18.0 | 18.4 | 20.1 | 16.2 | 16.3 | 16.3 | .... | | | |
| GRAND TOTAL—1937 | 39,195,634 | 165,487,566 | 171,242,975 | 44,666,587 | 117,124,609 | 116,248,967 | 227,773,272 | 77,195,894 | 958,935,504 | 966,383,000 | 31,085,990 | | | |
| Per cent of operating revenues | 21.6 | 21.6 | 19.7 | 17.7 | 22.7 | 24.4 | 31.2 | 20.2 | 23.0 | 23.1 | .... | | | |

(1) Excludes unclassified material for equipment and electrification on the Pennsylvania. (2) Bureau of Railway Economics, A. A. R.

975,000 in 1938 and $4,559,000 of boiler tubes and superheat material, as compared with $2,054,000 in 1938. Purchases of signal and interlocking materials totalled $13,479,000, as compared with $7,470,000 in 1938.

Purchases of bolts, nuts, washers, etc., totalled approximately $9,649,000, as compared with $3,850,000 in 1938, while $44,021,000 was spent for locomotive and car castings as compared with only $23,201,000 in 1938. During 1939 the Class I railroads and short lines also spent approximately $5,799,000 for track and roadway tools, $5,876,000 for iron and steel pipe and fittings and $4,158,000 for hardware, including $1,750,000 of welding supplies. They also spent approximately $6,515,000 for hand and small machine tools. Purchases of air brake materials totalled approximately $10,904,000, as compared with $6,586,000 in 1938.

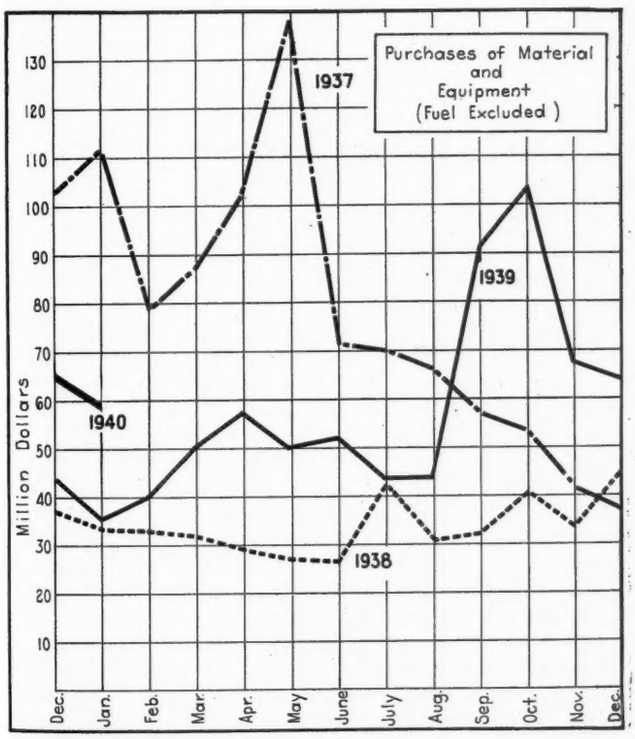
Last year's purchases included approximately $5,350,000 of lubricating oil, $1,270,000 of illuminating oil, $1,915,000 of waste for journal packing, approximately $2,170,000 of boiler compound, approximately $9,000,000 of wood preservatives, $6,900,000 of paint and $6,550,000 of oxygen. In addition, approximately $20,851,000 was spent for journal bearings and other materials of copper and brass, as compared with $14,848,000 in 1938, while approximately $12,534,000 was spent for electrical materials, as compared with $8,649,000 in the previous year. Expenditures for stationery and printing totalled approximately $14,675,000, as compared with $13,471,000 in 1938. Expenditures for commissary supplies totalled $16,434,000, as compared with $16,008,000 in 1938, and expenditures for rubber, leather and allied products totalled $7,055,000, as compared with $4,479,000 in 1938. As nearly as can be estimated from the available statistics, $2,600,000 was spent for automobiles and parts.

The railroads last year purchased directly from producers and distributors approximately 89,579,000 tons of bituminous coal, 2,079,000 tons of anthracite coal, 59,742,000 barrels of fuel oil, 53,485,000 gal. of gasoline and 45,581,000 crossties. Purchases included approximately 140,065,000 board feet of switch and bridge ties, and 672,930,000 board feet of timber and lumber. The *delivered* rail amounted to 968,000 tons. Approximately 1,329,000 tons of rails were ordered last year. The

**Purchases By Private Car Companies for Rail Line Operations 1939**

| Company | Material and Supplies | Cars Ordered from other Companies | Total |
|---|---|---|---|
| Pullman Company | $11,133,599 | $6,405,726* | $17,539,325 |
| Armour Car Lines | 529,914 | — | 529,914 |
| Merchants Despatch | 429,939 | — | 429,939 |
| Pacific Fruit Express | 5,743,364 | — | 5,743,364 |
| Fruit Growers Express | 1,561,852 | — | 1,561,852 |
| Burlington Refrigerator Express | 267,353 | — | 267,353 |
| Western Fruit Express | 523,220 | — | 523,220 |
| Wilson Car Lines | 194,075 | — | 194,075 |
| Sinclair Refining | 246,000 | — | 246,000 |
| General American Transportation | No Data | | |
| Cudahy Packing Company | 186,902 | — | 186,902 |

* Pullman-Standard Car Manufacturing Company.

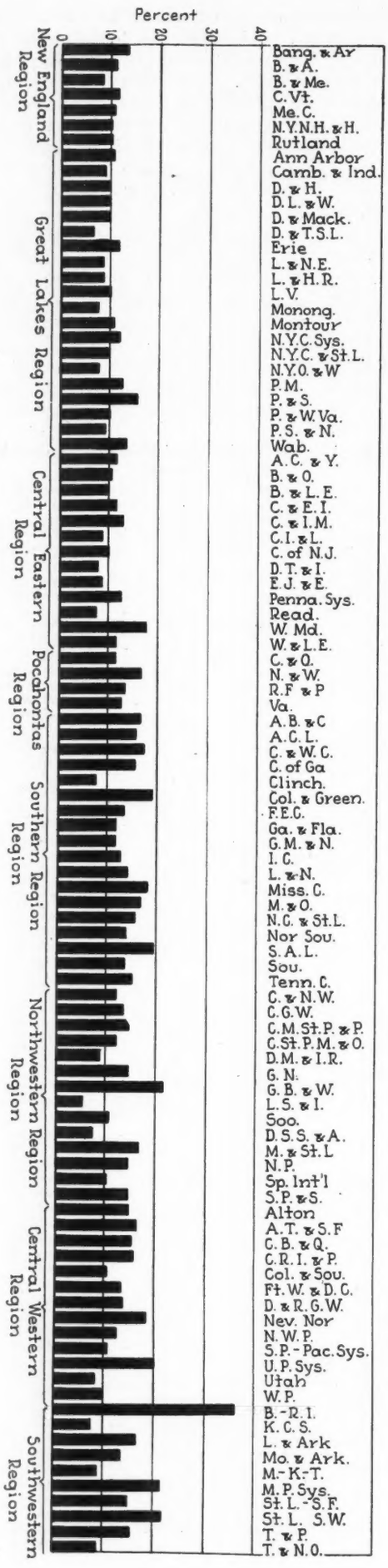



**Month to Month Trend of Materials and Equipment, exclusive of Fuel, Purchased from Manufacturers**

**Materials Purchased, Exclusive of Fuel and Equipment—Month of January**

| | January 1940 | January 1939 | Increase per cent | December 1939 | Increase per cent |
|---|---|---|---|---|---|
| A. C. & Y. | $38,002 | $29,516 | 30 | $16,813 | 126 |
| Alton | 256,368 | 172,631 | 120 | 386,084 | —32 |
| Alton & Southern | 35,149 | 14,453 | 140 | 6,798 | 420 |
| A. T. & S. F. | 2,852,061 | 820,816 | 248 | 2,517,378 | 14 |
| A. B. & C. | 54,366 | 29,914 | 182 | 113,990 | 380 |
| B. & O. | 2,481,242 | 831,080 | 200 | 2,303,780 | 7 |
| Bangor & Aroostook | 42,519 | 43,171 | —2 | 45,796 | —7 |
| Bing. & Gar. | 8,286 | 4,030 | 103 | 4,931 | 68 |
| B. & Me. | 354,493 | 312,634 | 13 | 419,347 | —15 |
| C. & Ind. | 5,896 | 4,965 | 19 | 10,948 | 440 |
| Cent. of Ga. | 183,716 | 186,971 | —1 | 175,723 | 5 |
| Cent. of N. J. | 359,478 | 275,757 | 30 | 329,515 | 9 |
| Cent. Vt. | 39,336 | 47,984 | —18 | 49,810 | —21 |
| *C. & O. | 2,455,159 | 1,404,890 | 75 | 1,894,040 | 29 |
| C. & E. I. | 241,037 | 120,093 | 100 | 147,140 | 64 |
| C. & I. M. | 38,175 | 25,054 | 51 | 45,205 | —15 |
| C. B. & Q. | 1,081,571 | 843,341 | 28 | 1,284,838 | —20 |
| C. G. W. | 397,174 | 169,094 | 34 | 175,884 | 126 |
| C. R. I. & P. | 788,359 | 552,799 | 42 | 825,645 | —5 |
| Colo. & Sou. | 74,382 | 60,834 | 22 | 40,313 | 85 |
| C. & G. | 21,360 | 18,660 | 15 | 21,947 | —3 |
| D. & H. | 244,968 | 205,346 | 19 | 212,151 | 15 |
| Det. & Mac. | 4,505 | 3,968 | 14 | 5,305 | —15 |
| D. & T. S. L. | 13,079 | 10,773 | 21 | 37,336 | 250 |
| D. T. & I. | 35,691 | 26,680 | 33 | 27,375 | 30 |
| D. M. & I. R. | 165,331 | 104,255 | 58 | 107,233 | 55 |
| D. S. S. & A. | 10,051 | 12,238 | 18 | 12,737 | 21 |
| E. J. & E. | 184,087 | 100,821 | 84 | 207,178 | 11 |
| Erie | 692,230 | 613,419 | 12 | 774,552 | 11 |
| F. E. C. | 130,961 | 87,250 | 49 | 131,771 | —1 |
| Ft. W. & D. C. | 109,170 | 59,283 | 84 | 64,376 | 70 |
| Great Northern | 1,082,803 | 751,075 | 45 | 989,155 | 11 |
| G. M. & N. | 87,758 | 50,524 | 75 | 48,382 | 80 |
| Ill. Term. | 70,844 | 43,998 | 60 | 93,809 | —25 |
| K. C. T. | 51,632 | 37,698 | 37 | 57,048 | 10 |
| L. S. & I. | 13,436 | 3,204 | 320 | 22,982 | —42 |
| L. & N. E. | 19,433 | 14,534 | 32 | 26,816 | —27 |
| L. V. | 375,310 | 329,969 | 13 | 289,917 | 30 |
| L. & A. | 43,165 | 47,013 | 9 | 79,722 | —46 |
| L. & N. | 2,077,944 | 916,358 | 128 | 1,711,697 | 20 |
| Me. Cent. | 153,135 | 100,587 | 53 | 134,734 | 14 |
| M. & St. L. | 103,553 | 105,481 | —1 | 89,206 | 16 |
| Miss. Cent. | 4,758 | 4,762 | 0 | 4,531 | 5 |
| Mo. & Ark. | 11,541 | 13,253 | —12 | 13,981 | —17 |
| M-K-T | 165,194 | 196,018 | —15 | 232,824 | —27 |
| M. & O. | 193,644 | 95,794 | 100 | 286,665 | —32 |
| Monongahela | 22,126 | 10,669 | 106 | 22,609 | —2 |
| Montour | 11,160 | 10,236 | 9 | 9,048 | 23 |
| N. C. & St. L. | 323,346 | 156,282 | 106 | 151,397 | 114 |
| Nev. Nor. | 12,191 | 4,504 | 150 | 10,196 | 21 |
| N. Y. C. | 4,619,745 | 2,825,778 | 63 | 4,226,480 | 9 |
| *N. Y. C. & St. L. | 882,405 | 557,804 | 59 | 742,098 | 19 |
| N. Y. N. H. & H. | 755,015 | 419,113 | 80 | 800,053 | —6 |
| N. Y. O. & W. | 34,611 | 53,334 | —35 | 62,774 | —35 |
| Nor. Pac. | 623,663 | 605,967 | 3 | 626,248 | 0 |
| Nw. Pac. | 10,815 | 7,595 | 43 | 16,800 | —35 |
| Penna. & L. I. | 5,878,247 | 2,467,693 | 138 | 7,742,487 | —25 |
| P. R. S. L. | 21,036 | 25,144 | —16 | 450,704 | |
| *P. M. | 699,514 | 484,007 | 44 | 596,259 | 17 |
| Pitts. & Shaw. | 24,915 | 3,950 | 530 | 4,428 | 460 |
| Pitts. Shaw. & Nor. | 6,218 | 5,211 | 19 | 8,771 | —29 |
| Reading | 504,283 | 325,112 | 56 | 452,938 | 12 |
| R. F. & P. | 96,546 | 80,406 | 20 | 82,989 | 15 |
| Rutland | 26,372 | 13,412 | 95 | 26,503 | —1 |
| St. L.-S. F. | 424,913 | 501,322 | —15 | 467,008 | —9 |
| S. A. L. | 672,451 | 656,489 | 2 | 775,239 | —13 |
| Sou. | 1,645,046 | 1,089,213 | 51 | 2,113,412 | —6 |
| Sou. Pac. | 1,731,041 | 1,137,658 | 52 | 1,295,311 | 58 |
| S. P. & S. | 85,592 | 73,135 | 17 | 104,927 | —18 |
| Tenn. Cent. | 43,876 | 23,550 | 85 | 32,841 | 33 |
| Term. of St. L. | 100,885 | 61,420 | 83 | 107,589 | —6 |
| T. & N. O. | 475,432 | 253,410 | 87 | 406,446 | 17 |
| T. & P. | 619,694 | 269,188 | 130 | 530,555 | 17 |
| U. P. | 3,259,250 | 1,213,741 | 168 | 3,507,266 | —7 |
| Utah | 14,563 | 1,692 | .. | 17,642 | —17 |
| Va. | 432,399 | 264,312 | 64 | 406,018 | 6 |
| W. Md. | 580,695 | 127,458 | 350 | 243,814 | 138 |
| W. Pac. | 88,000 | 173,500 | —48 | 144,700 | —39 |
| W. & L. E. | 160,751 | 73,958 | 117 | 283,604 | —43 |

*Includes fuel.




**Ratio Between the Dollar Value of the Materials, Exclusive of Fuel and Equipment, Purchased by Railroads in 1939 and Their Operating Revenues**

purchases made directly by the railroads last year also included approximately 835,000 barrels of cement (excluding cement used by contractors), approximately 11,293,000 cu. yd. of purchased ballast, approximately 233,000 lin. ft. of poles, posts and piling, 1,310,000 rods of barbed wire, 26,200,000 gal. of lubricating oil, 2,240,000 gal. of illuminating oil, 27,200,000 bbl. of waste and approximately 670,000,000 cu. ft. of oxygen for welding and cutting.

### Western Roads Largest Buyers

Last year, as in previous years, the railroads in the western district spent more for materials and supplies, exclusive of equipment, than roads in the eastern district and their purchases again represented a larger percentage of their operating revenues. Materials and fuel, exclusive of new equipment, purchased by Class I railroads of the western district last year amounted to $329,817,000, which was 42.8 per cent of the total. As compared with this, $150,839,000, or 19.5 per cent of the total, was spent by railroads in the southern district and $289,715,000, or 37.7 per cent of the total, was spent by railroads in the eastern district, including the New England lines. The purchases of materials and fuel by the railroads in the western district last year were equivalent to 21.6 per cent of their gross operating revenues while the purchases by the railroads in the southern district were equivalent to 20 per cent of their gross operating revenues and the purchases by the railroads in the eastern district were equivalent to 16.7 per cent of their gross operating revenues.

**Annual Purchases—Supplies and Equipment—12 Months**

| | Materials received from mfrs. (000) | Equipment ordered from mfrs. (000) | Total from mfrs. (000) | Fuel* (000) | Total including fuel (000) |
|---|---|---|---|---|---|
| **Class I Roads** | | | | | |
| 1929 | $991,795 | $397,121 | $1,388,916 | $336,805 | $1,725,721 |
| 1930 | 727,223 | 146,471 | 873,694 | 308,277 | 1,181,971 |
| 1931 | 451,651 | 28,873 | 480,524 | 243,349 | 723,873 |
| 1932 | 268,100 | 2,623 | 270,723 | 177,000 | 447,723 |
| 1933 | 276,846 | 5,857 | 282,703 | 180,904 | 463,607 |
| 1934 | 395,012 | 66,850 | 461,862 | 209,488 | 671,350 |
| 1935 | 365,830 | 35,696 | 401,526 | 228,720 | 630,246 |
| 1936 | 555,841** | 222,594 | 778,435 | 266,463 | 1,044,898 |
| 1937 | 697,402** | 173,320 | 870,722 | 282,366 | 1,153,088 |
| 1938 | 343,033 | 74,006** | 417,039 | 239,778 | 656,817 |
| 1939 | 519,494 | 188,838** | 708,332 | 257,879 | 966,211 |
| **All Railroads** | | | | | |
| 1936 | 573,569 | 222,594 | 796,163 | 275,637 | 1,071,800 |
| 1937 | 718,828 | 173,320 | 892,148 | 292,026 | 1,184,174 |
| 1938 | 357,192 | 74,006** | 431,198 | 247,124 | 678,322 |
| 1939 | 535,775 | 188,838** | 724,613 | 269,351 | 993,964 |
| **Railroads and Private Car Lines** | | | | | |
| 1939 | 556,404 | 188,838** | 745,242 | 269,351 | 1,014,593 |

*Coal and fuel oil.
**Includes material for building equipment and electrification on the Pennsylvania.

Of the total expenditures made by the Class I railroads last year for materials and supplies, $32,367,000 were made by railroads in the New England region, $132,117,000 were made by railroads in the Great Lakes region, $125,231,000 were made by railroads in the Central Eastern region, $42,740,000 were made by railroads in the Pocahontas region, $108,099,000 were made by railroads in the Southern region, $92,455,000 were made by railroads in the Northwestern region, $172,530,000 were made by railroads in the Central Western region and $64,832,000 were made by railroads in the Southwestern region. Total purchases of materials and supplies, exclusive of equipment, made by the Class I railroads last year were equivalent to 19.6 per cent of the gross operating revenues of the Class I railroads. The ratio of their purchases to revenues was 16.3 per cent in 1938 and 23.0 per cent in 1937.

The purchases made by the railroads last year were

again made in all states of the Union. As nearly as can be estimated from the information available to this paper, approximately $197,034,000 of the materials, fuel and equipment purchased by the Class I railroads in 1939 came from the state of Pennsylvania while the state of Illinois furnished $132,839,000 of the total. The Class I railroads also spent approximately $67,622,000 in Indiana for material, fuel and equipment, $66,029,000 in Ohio, $52,455,000 in New York, $49,262,000 in California, $40,295,000 in West Virginia, $25,055,000 in New Jersey and $36,464,000 in Missouri. The Class I railroads last year also spent approximately $27,048,000 in Alabama for materials and equipment, approximately $21,979,000 in Colorado, approximately $10,463,000 in Connecticut, approximately $12,290,000 in Massachusetts, approximately $16,029,000 in Michigan, approximately $14,559,000 in Minnesota, and approximately $26,138,000 in Texas. These expenditures in the several states were exclusive of other expenditures made in the various states by the railroads for labor and in payment of taxes.

### Heavier Buying General

Only seven railroads reported smaller purchases in 1939 for materials from manufacturers than in 1938. By contrast, the purchasers made by the other roads were much larger than in 1938. The *increase* in the annual purchases amounted to 95 per cent on the Atchison, Topeka & Santa Fe, 73 per cent on the Baltimore & Ohio, 53 per cent on the Boston & Maine, 40 per cent on the Central of New Jersey, 47 per cent on the Chicago, Burlington & Quincy, 67 per cent on the Chicago, Milwaukee, St. Paul & Pacific, 70 per cent on the Duluth, Missabe & Iron Range and the Elgin, Joliet & Eastern, 66 per cent on the Great Northern, 38 per cent on the Illinois Central, 55 per cent on the Missouri Pacific,

## Purchases from Commercial Firms by Short Lines and Switching and Terminal Companies and Others in 1939*

| | Fuel | Other Materials | Total |
|---|---|---|---|
| Akron & Barberton Belt | $18,104 | $24,637 | $42,741 |
| Alabama & Florida | 1,477 | 381 | 1,858 |
| Alameda Belt | 6,753 | 2,621 | 9,374 |
| Alaska | 135,132 | 909,355 | 1,144,487 |
| Allegheny & South Side | 4,066 | 9,476 | 17,842[4] |
| Arkansas & Louisiana Missouri | 8,817 | 16,392 | 25,209 |
| Atlantic & East Carolina | 32,700 | 33,000 | 65,700 |
| Atlantic & Yodkin | 55,447 | 79,660 | 135,107 |
| Bath & Hammondsport | 1,953 | 2,570 | 4,523 |
| Bevier & Southern | 5,491 | 9,185 | 14,676 |
| Bingham & Garfield | 6,761 | 121,878 | 128,639 |
| Birmingham Southern | 29,352 | 106,615 | 761,572[2] |
| Butte, Anaconda & Pacific | 5,164 | 250,866 | 256,030 |
| Buffalo Creek & Gauley | 17,840 | 87,559 | 105,399 |
| California Western & Navigation | 19,959 | 45,450 | 65,409 |
| Camino, Placerville & Lake Tahoe | 2,731 | 5,620 | 8,851[3] |
| Carrollton | 2,027 | 2,666 | 4,693 |
| Central Indiana | 2,702 | 20,123 | 22,825 |
| Chattahoochee Valley | 13,642 | 25,656 | 39,298 |
| Chicago & Calumet River | 999 | 22 | 1,021 |
| Chicago, Attica & Southern | 23,012 | 51,216 | 74,228 |
| Chicago, Springfield & St. Louis | 13,551 | 15,568 | 29,119 |
| Chicago, West Pullman & Southern | 39,813 | 54,278 | 94,091 |
| Cincinnati Union Terminal | 125,199 | 388,991 | 514,590[4] |
| Clarendon & Pittsford | 10,692 | 4,000 | 14,692 |
| Columbia, Newberry & Laurens | 29,164 | 44,628 | 73,792 |
| Crystal River & San Juan | 1,908 | 3,210 | 5,118 |
| Cumberland & Pennsylvania | 22,481 | 78,939 | 101,420 |
| Dansville & Mt. Morris | 3,192 | 5,908 | 9,100 |
| Dardanelle & Russellville | 2,524 | 1,923 | 4,447 |
| Denver & Intermountain | .... | 2,820 | 2,820 |
| Des Moines Union | 103,274 | 50,272 | 153,546 |
| Detroit, Caro & Sandusky | 4,630 | 7,889 | 12,519 |
| Detroit Terminal | 88,394 | 18,318 | 106,712 |
| Donora Southern | 17,537 | 66,756 | 84,293 |
| Duluth & Northeastern | 13,953 | 11,478 | 25,431 |
| Durham & Southern (Electric) | 19,232 | 54,395 | 73,627 |
| East Broad Top | 17,385 | 64,933 | 82,318 |
| East Erie Commercial | 2,063 | 3,597 | 5,660 |
| East Jersey R. R. & Term. | 6,766 | 1,168 | 7,934 |
| Fernwood, Columbia & Gulf | 9,383 | 27,000 | 36,383 |
| Flemingsburg & Northern | 705 | 1,643 | 2,348 |
| Fort Dodge, Des Moines & Southern | 157,405 | 177,339 | 334,744 |
| Fort Smith, Subiaco & Rock Island | 540 | 1,693 | 2,233 |
| Frankfort Cincinnati | 9,139 | 4,885 | 14,024 |
| Galveston, Houston & Henderson | 28,820 | 97,749 | 126,569 |
| Galveston Wharf | 19,079 | 203,544 | 222,623 |
| Georgia, Ashburn, Sylvester & Camilla | 8,187 | 2,544 | 10,731 |
| Georgia Northern | 8,149 | 5,553 | 13,702 |
| Genesee & Wyoming | 10,850 | 33,292 | 44,142 |
| Graysonia, Nashville & Ashdown | 4,368 | 7,800 | 12,168 |
| Great Western | 13,986 | 8,458 | 22,444 |
| Greenville & Northern | 3,068 | 2,353 | 5,421 |
| Gulf & Northern | 3,060 | 2,952 | 6,012 |
| Hannibal Connecting | 1,364 | 5,087 | 6,452 |
| Helena Southwestern | 3,331 | 1,994 | 5,325 |
| High Pt., Randleman, Asheboro & Southern | 5,961 | 879 | 6,840 |
| High Pt.-Thomasville & Denton | 13,503 | 20,262 | 33,765 |
| Hoboken Manufacturers | 1,997 | 11,855 | 13,852 |
| Illinois Northern | 34,942 | 41,833 | 76,775 |
| Indianapolis Union | 61,564 | 71,413 | 132,977 |
| Interstate of Virginia | 46,101 | 294,802 | 340,903 |
| Ironton of Pennsylvania | 11,781 | 366 | 12,147 |
| Jacksonville Terminal | 117,255 | 236,103 | 353,358 |
| Johnstown & Stony Creek | 2,030 | 5,683 | 7,713 |
| Lake Champlain & Moriah | 26,660 | 13,516 | 40,176 |
| Lake Superior Terminal | 47,000 | 48,500 | 95,500 |
| La Salle & Bureau County | 3,534 | 2,552 | 6,086 |
| London & Port Stanley | 39,078 | 3,868 | 42,946 |
| Longview, Portland & Northern | 19,000 | 39,500 | 58,500 |
| Lorain & Southern | 1,758 | 2,581 | 4,339 |
| Louisiana & Northwest | 14,610 | 30,688 | 45,298 |
| Lowville & Beaver River | 4,618 | 2,918 | 7,536 |
| Magma Arizona | 6,821 | 1,802 | 8,623 |
| Manistee & Northeastern | 13,236 | 20,715 | 33,951 |
| Manufacturers Junction | 3,487 | 9,764 | 13,251 |
| Manufacturers (St. Louis) | 34,946 | 47,827 | 82,773 |
| Marianna & Blountstown | 2,789 | 297 | 3,086 |
| Maryland & Pennsylvania | 47,298 | 82,163 | 129,461 |
| Meridian & Bigbee River | 14,524 | 8,543 | 23,067 |
| Midland Continental | 9,699 | 21,526 | 35,125[5] |
| Midland Terminal | 66,008 | 23,154 | 89,162 |
| Minnesota & International | 71,664 | 5,751 | 77,415 |
| Mississippi & Skuna Valley | 5,606 | 9,311 | 14,917 |
| Monongahela West Penn Public Service | .... | 40,000 | 40,000 |
| Montana, Wyoming & Southern | 3,914 | 10,588 | 14,502 |
| Montpelier & Wells River | 27,029 | 23,954 | 50,983 |
| Morehead & North Fork | 1,314 | 13,908 | 20,222[6] |
| Morrissey, Fernie & Michel | 2,226 | 1,951 | 4,177 |
| Nevada Copper Belt | 3,093 | 1,168 | 4,261 |
| Newburgh & South Shore | 45,873 | 74,427 | 514,726[7] |
| New Orleans Terminal | 78,540 | 104,329 | 182,869 |
| New York & Long Branch | 6,511 | 98,436 | 104,947 |
| New York Dock | 31,965 | 27,422 | 59,387 |
| Norfolk & Portsmouth Belt | 107,086 | 48,990 | 156,076 |
| Northeast Oklahoma | 21,040 | 53,379 | 233,299[8] |
| Northern Pacific Terminal | 81,974 | 139,222 | 221,196 |
| North Louisiana & Gulf | 6,807 | 11,760 | 18,567 |
| Ohio & Morenci | 1,700 | .... | 1,700 |
| Oklahoma City Jct. | .... | 2,107 | 2,107 |
| Oregon & Northwestern | 45,141 | 20,276 | 65,417 |
| Oregon, California & Eastern | 40,979 | 528 | 41,507 |
| Pacific Coast R. R. | 20,800 | 39,560 | 60,360 |
| Pacific Coast Ry. | 2,139 | 23,074 | 25,213 |
| Pacific Electric | 130,845 | 903,129 | 1,033,974 |
| Peninsula Terminal | 2,946 | 1,334 | 4,280 |
| Piedmont & Northern (Electric) | 2,552 | 192,672 | 195,224 |
| Pittsburgh, Allegheny & McKees Rocks | 1,247 | 1,093 | 2,340 |
| Pittsburgh, Lisbon & Western | 16,968 | 20,771 | 37,739 |
| Pittsburgh-Youghiogheny | 15,196 | 11,809 | 27,005 |
| Port Townsend Southern | .... | 2,228 | 2,631[9] |
| Quanah, Acme & Pacific | 31,238 | 39,424 | 70,662 |
| Rahway Valley | 7,501 | 6,422 | 13,923 |
| Raritan River | 20,956 | 17,577 | 38,533 |
| River Terminal | 64,040 | 18,603 | 82,643 |
| Rockdale, Sandow & Southern | 595 | 515 | 1,110 |
| St. Johnsbury & Lake Champlain | 42,534 | 21,181 | 63,715 |
| St. Joseph Belt | 3,046 | 3,876 | 6,922 |
| St. Louis & Hanibal | 4,951 | 8,464 | 13,415 |
| St. Louis & O'Fallon | 3,277 | 19,538 | 22,815 |
| St. Louis Refrigerator Car | 671 | 191,010 | 191,681 |
| St. Louis & Troy | 971 | 765 | 1,736 |
| Salt Lake & Utah (Electric) | 2,450 | 70,462 | 72,912 |
| San Luis Central | 1,900 | 1,514 | 3,414 |
| Sibley, Lake Bisteneau & Southern | .... | .... | 18,453 |
| Sioux City Terminal | 10,398 | 905 | 11,303 |
| South Georgia | 10,879 | 11,408 | 22,287 |
| South Omaha Terminal | 25,719 | 16,867 | 42,586 |
| Tennessee | 14,205 | 34,150 | 48,355 |
| Tennessee, Alabama & Georgia | 25,197 | 104,972 | 130,169 |
| Tennessee & North Carolina | 6,302 | 3,394 | 9,696 |
| Terminal Railway Alabama State Docks | 3,800 | 84,000 | 137,800[10] |
| Texas City Terminal | 12,096 | 164,329 | 176,425 |
| Tidewater Southern | 10,365 | 24,385 | 34,750 |
| Toledo Terminal | 74,470 | 83,835 | 158,305 |
| Tonopah & Goldfield | 14,231 | 15,199 | 29,430 |
| Trona | 29,157 | 43,130 | 72,287 |
| Tuskegee | 3,077 | 9,851 | 12,928 |
| Union of Pittsburgh | 369,349 | 1,179,482 | 2,413,815[11] |
| Union Terminal of Dallas | 7,389 | 24,478 | 31,867 |
| Union Terminal of St. Joseph | 1,404 | 6,715 | 8,119 |
| Unity | 2,510 | 3,195 | 5,705 |
| Utah Idaho Central (Electric) | 4,957 | 86,195 | 91,152 |
| Ventura | 973 | 2,850 | 3,823 |
| Verde Tunnel & Smelter | 17,552 | 26,248 | 43,800 |
| Virginia Blue Ridge | 2,709 | 7,115 | 10,394[12] |
| Visalia (Electric) | 3,628 | 6,696 | 10,324 |
| West Virginia Northern | 2,053 | 2,513 | 4,566 |
| Wichita Falls & Southern | 17,168 | 37,873 | 55,041 |
| Wichita Northwestern | 3,005 | 5,615 | 8,620 |
| Winchester & Wardensville | 4,260 | 1,781 | 6,041 |
| Winona | 9,478 | 27,172 | 36,650 |
| Winston-Salem Southbound | 23,900 | 36,565 | 60,465 |
| Wrightsville & Tennille | 20,635 | 21,160 | 41,795 |
| Wyoming | 4,577 | 6,756 | 11,333 |
| Yosemite Valley | 30,440 | 45,444 | 75,884 |
| Yuma Valley | .... | 2,500 | 2,500 |

*Not included in the table of Class I Railroads.

Equipment included as follows: [1]$4,300; [2]$625,605; [3]$500; [4]$400; [5]$3,900; [6]$5,000; [7]$394,426; [8]$158,880; [9]$403; [10]$50,000; [11]$864,984; [12]$570.

54 per cent on the New York Central, 104 per cent on the Pennsylvania, 58 per cent on the Reading, 168 per cent on the St. Louis Southwestern, 45 per cent on the Southern, and 123 per cent on the Union Pacific.

## Gains Hold in January

Railway buying reached a peak last October when purchases of material and equipment, exclusive of fuel purchased from manufacturers totalled $103,957,000, and then declined to $67,205,000 in November and $64,108,000 in December. The railroads did not obtain deliveries on much material ordered last year, however, and the receipt of this material, together with a continuing large volume of buying for routine operations, resulted in a larger volume of purchasing in the early months of this year than could have been expected.

The Class I railroads received approximately $3,567,000 of rail during January, 1940, approximately $4,478,000 of crossties, and $47,324,000 of miscellaneous materials, or a total of $55,369,000 of materials, exclusive of fuel and equipment, from manufacturers and a total of $80,425,000 of material and fuel, exclusive of equipment. Adding $4,763,000 of orders placed for new equipment increases the total to $85,188,000 for the month. More rail was received by the railroads in January than in any month since last June and the total was three times as great as in December.

The crossties received in January compared with the total of $4,047,000 in December and $2,600,000 in January, 1939. Miscellaneous materials received during January totalled about $2,000,000 less than in December but, with the exception of last December, totalled larger than the corresponding receipts in any month in 1939 and they were larger by approximately 71 per cent than the corresponding receipts of miscellaneous materials in January, 1939. Total materials, exclusive of fuel, received from manufacturers in January were larger than in any month in 1939 and showed an increase of approximately $25,013,000, or 82 per cent, over the corresponding purchases in January, 1939. The receipts of materials, exclusive of fuel and equipment, were larger in January, 1940, than in any January since 1930.

While the majority of the railroads reported less buying of materials in January, 1940, than in December, 1939, the purchases in January, with practically no important exceptions, were much larger than in January, 1939, and several railroads received more materials in January than in December. Compared with the purchases last December, the materials received from manufacturers during the month of January, 1940, showed a 14 per cent increase on the Santa Fe, a 64 per cent increase on the Chicago & Eastern Illinois, a 30 per cent increase on the Lehigh Valley, a 50 per cent increase on the Southern Pacific Lines, a 33 per cent increase on the Tennessee Central, and a 17 per cent increase on the Texas & Pacific.

Details on the purchases made by the railroads in 1939 and in previous years are given in the tables. For further comparisons, reference is made to the corresponding analysis of 1938 purchases in the *Railway Age* of April 1, 1939.

**Purchases By Class I Railroads—1939**
**(Excludes Fuel and New Equipment)**

| | 1938 | 1939 | Increase from 1938 | Per cent increase 1939 | Per cent of oper. rev. 1939 |
|---|---|---|---|---|---|
| Akron, Canton & Young | $121,900 | $228,314 | $106,414 | 88 | 11.1 |
| Alton | 1,419,134 | 2,440,494 | 1,021,360 | 72 | 14.7 |
| Alton & Southern | 111,904 | 138,285 | 26,381 | 23 | ... |
| Ann Arbor | 180,004 | 272,703 | 92,699 | 51 | 6.9 |
| Ata. & W. Pt. Lines | 739,892 | 1,085,558 | 345,666 | 47 | 34.0 |
| A. T. & S. F. | 13,325,899 | 25,969,314 | 12,643,415 | 95 | 16.2 |
| A. B. & C. | 591,590 | 560,753 | −30,837 | −5 | 16.2 |
| A. C. L. | 7,225,772 | 7,297,697 | 71,925 | 1 | 15.5 |
| B. & O. Sys. | 6,169,787 | 16,805,516 | 10,695,729 | 73 | 10.4 |
| Bangor & Aroostook | 1,076,673 | 670,514 | −406,159 | −38 | 13.1 |
| B. & L. E. | 909,600 | 1,279,113 | 369,513 | 41 | 9.3 |
| Boston & Albany | 1,471,518 | 1,738,432 | 266,914 | 18 | 10.7 |
| Boston & Maine | 2,486,295 | 3,802,451 | 1,316,156 | 53 | 8.2 |
| Burlington-Rock Island | 90,985 | 51,235 | −39,750 | −44 | 36.0 |
| Cambria & Indiana | 96,744 | 127,418 | 30,674 | 32 | 8.8 |
| Central of Georgia | 1,758,274 | 2,355,080 | 596,806 | 34 | 15.3 |
| Cent. of N. J. | 2,419,648 | 3,380,335 | 960,687 | 40 | 10.1 |
| Central Vermont | 675,491 | 649,199 | −26,292 | −4 | 11.1 |
| Charleston & W. Car. | 393,067 | 423,629 | 30,562 | 8 | 17.1 |
| Chesa. & Ohio | 9,772,110 | 13,350,915 | 3,578,805 | 37 | 11.2 |
| C. & E. I. | 1,325,321 | 1,742,541 | 417,220 | 31 | 11.4 |
| C. & I. M. | 392,160 | 504,548 | 112,388 | 29 | 12.9 |
| C. & N. W. | 9,336,075 | 10,464,641 | 1,128,566 | 12 | 12.0 |
| C. B. & Q. | 10,020,035 | 14,686,994 | 4,666,959 | 47 | 15.2 |
| C. G. W. | 2,143,458 | 2,407,128 | 263,670 | 12 | 13.3 |
| C. I. & L. | 796,318 | 800,975 | 4,657 | 1 | 8.5 |
| C. R. I. & P. | 10,936,662 | 12,328,322 | 1,391,660 | 13 | 15.7 |
| C. St. P. M. & O. | 1,833,418 | 2,138,394 | 304,976 | 17 | 12.0 |
| Clinchfield | 601,604 | 568,585 | −33,019 | 5 | 7.8 |
| Colo. & Sou. | 597,851 | 687,556 | 89,705 | 15 | 10.5 |
| Col. & Gr. | 169,434 | 266,744 | 97,310 | 57 | 18.9 |
| Delaware & Hudson | 1,572,655 | 2,415,728 | 843,073 | 54 | 9.5 |
| D. L. & W. | 3,090,546 | 4,882,458 | 1,791,912 | 58 | 9.7 |
| D. & R. G. W. | 2,502,625 | 3,479,232 | 976,607 | 39 | 13.9 |
| Detroit & Mackinac | 73,653 | 81,992 | 8,339 | 11 | 9.4 |
| Detr. & Tol. S. L. | 108,985 | 210,809 | 101,824 | 93 | 6.5 |
| D. T. & I. | 434,253 | 505,035 | 70,782 | 16 | 7.6 |
| D. M. & I. R. | 917,628 | 1,556,396 | 638,768 | 70 | 8.4 |
| D. S. S. & A. | 272,377 | 167,946 | −104,431 | −38 | 7.1 |
| E. J. & E. | 874,775 | 1,511,463 | 636,688 | 73 | 8.3 |
| Erie | 7,158,555 | 9,054,000 | 1,895,445 | 26 | 11.1 |
| F. E. C. | 810,387 | 1,222,349 | 411,962 | 51 | 13.2 |
| Ft. W. & D. C. | 857,667 | 788,291 | −69,376 | −8 | 13.1 |
| Grand Trunk Western | 2,376,997 | 3,865,465 | 1,488,468 | 62 | 17.7 |
| Great Northern | 8,116,270 | 13,500,569 | 5,384,299 | 66 | 14.7 |
| Green Bay & Western | 266,931 | 363,811 | 96,880 | 36 | 21.5 |
| Gulf, Mobile & Nor. | 638,456 | 781,424 | 142,969 | 22 | 11.3 |
| Illinois Central | 9,995,567 | 13,802,579 | 3,807,012 | 38 | 12.4 |
| Illinois Terminal | 678,946 | 975,981 | 297,035 | 44 | 16.4 |
| Kansas City Southern | 940,570 | 1,193,795 | 253,225 | 27 | 8.9 |
| Lake Super. & Ish. | 95,774 | 151,276 | 55,502 | 58 | 5.2 |
| Lehigh & Hud. Riv. | 101,936 | 135,219 | 33,283 | 33 | 8.5 |
| L. & N. E. | 201,696 | 354,155 | 152,459 | 76 | 8.3 |
| Lehigh Valley | 3,005,316 | 4,298,584 | 1,293,268 | 43 | 9.5 |
| Louisiana & Ark. | 656,870 | 1,248,543 | 591,673 | 90 | 16.2 |
| Louisville & Nashville | 7,800,635 | 12,379,415 | 4,578,780 | 59 | 14.0 |
| Me. Cent. & Port. Term | 1,115,870 | 1,277,326 | 161,456 | 14 | 10.7 |
| M. & St. L. | 1,070,686 | 1,490,408 | 419,722 | 39 | 16.2 |
| M. St. P. & S. S. M. | 2,575,962 | 3,058,669 | 482,707 | 19 | 10.9 |
| Miss. Cent. | 69,033 | 153,588 | 84,555 | 122 | 18.0 |
| Mo. & Ark. | 126,977 | 143,037 | 16,060 | 13 | 13.0 |
| Missouri-Kansas-Texas | 2,164,501 | 2,457,992 | 293,491 | 14 | 8.8 |
| Missouri Pacific | 14,979,411 | 23,279,355 | 8,299,944 | 55 | 21.2 |
| Mobile & Ohio | 1,489,316 | 1,926,971 | 437,655 | 29 | 16.4 |
| Monongahela | 136,507 | 315,034 | 178,527 | 131 | 7.6 |
| Montour | 176,735 | 211,154 | 34,419 | 19 | 10.9 |
| N. Y. C. System | 27,582,725 | 42,155,292 | 14,772,567 | 54 | 11.9 |
| N. C. & St. L. | 1,481,840 | 2,212,352 | 730,512 | 49 | 14.8 |
| Nevada Northern | 80,343 | 121,034 | 40,691 | 51 | 18.2 |
| N. Y. C. & St. L. | 2,939,671 | 4,098,522 | 1,158,851 | 39 | 9.5 |

**Purchases By Class I Railroads—1939—Cont'd**

| | 1938 | 1939 | Increase from 1938 | Per cent increase 1939 | Per cent of oper. rev. 1939 |
|---|---|---|---|---|---|
| N. Y. N. H. & H. & N. Y. Conn | 7,371,598 | 8,841,910 | 1,470,312 | 20 | 10.3 |
| N. Y. O. & W. | 430,757 | 449,081 | 18,324 | 4 | 7.5 |
| Norfolk & Western | 10,295,335 | 15,685,532 | 5,390,197 | 52 | 16.8 |
| Norfolk Southern | 597,314 | 784,826 | 187,512 | 31 | 17.0 |
| Northern Pacific | 8,271,111 | 9,072,205 | 801,094 | 10 | 14.2 |
| Pennsylvania System | 27,846,164 | 56,803,848 | 28,957,684 | 104 | 12.3 |
| Pere Marquette | 2,799,238 | 3,805,388 | 1,006,150 | 36 | 12.5 |
| Pitts. & Shawmut | 84,430 | 115,202 | 30,772 | 36 | 16.4 |
| Pitts. & W. Va. | 323,510 | 327,869 | 4,359 | 1 | 8.9 |
| Pitts, Shawmut & Nor. | 58,013 | 89,224 | 31,211 | 54 | 9.0 |
| Reading | 2,639,877 | 4,163,036 | 1,523,159 | 58 | 7.3 |
| Rutland | 182,446 | 344,233 | 161,787 | 90 | 10.0 |
| R. F. & P. | 802,267 | 1,115,848 | 313,581 | 39 | 13.1 |
| Sou. Pac.-Pac. Sys. | 16,616,453 | 17,134,404 | 517,951 | 3 | 10.3 |
| Northwestern Pacific | 353,327 | 400,086 | 46,759 | 13 | 12.3 |
| St. L.-S. F. | 6,462,485 | 7,117,212 | 654,727 | 10 | 14.9 |
| St. L. Southwestern | 1,601,848 | 4,294,694 | 2,692,846 | 168 | 21.9 |
| Southern | 12,388,371 | 17,914,197 | 5,525,826 | 45 | 13.7 |
| Seaboard Air Line | 5,443,086 | 8,463,574 | 3,020,488 | 55 | 19.2 |
| Spokane International | 71,394 | 80,798 | 9,404 | 13 | 10.1 |
| S. P. & S. | 820,038 | 1,245,695 | 425,657 | 52 | 14.4 |
| Tennessee Central | 230,709 | 368,310 | 137,601 | 60 | 15.0 |
| T. & N. O. | 3,516,390 | 3,871,432 | 355,042 | 10 | 8.9 |
| Texas & Pacific | 2,743,431 | 4,022,331 | 1,278,900 | 47 | 15.2 |
| Union Pacific System | 14,808,327 | 33,036,519 | 18,228,192 | 123 | 20.0 |
| Utah | 54,193 | 67,083 | 12,890 | 24 | 8.1 |
| Virginia | 2,923,014 | 2,732,740 | −190,274 | −7 | 12.7 |
| Wabash | 4,197,635 | 5,566,136 | 1,368,501 | 33 | 12.5 |
| Western Maryland | 1,358,359 | 2,897,853 | 1,539,494 | 113 | 17.5 |
| Western Pacific | 3,302,403 | 1,613,715 | −1,688,688 | −51 | 9.7 |
| Wheeling & Lake Erie | 670,458 | 1,927,508 | 1,257,040 | 188 | 12.9 |
| **Class I Switching and Terminal Companies** | | | | | |
| Alton & Southern | 111,904 | 138,285 | 26,381 | 23 | |
| Belt of Chicago | 553,911 | 401,401 | −152,510 | −27 | |
| C. & W. I. | 427,121 | 489,246 | 62,125 | 14 | |
| Kansas City Terminal | 528,287 | 587,325 | 59,038 | 11 | |
| Peoria & Pekin Union | 219,442 | 273,716 | 54,274 | 25 | |
| Terminal of St. Louis | 767,829 | 974,329 | 206,500 | 27 | |

# S. 2009 Conferees Reach Agreement

WASHINGTON, D. C.

WITH agreement reached on all provisions save the Harrington "labor-protection" amendment, conferees on S. 2009, the omnibus transportation bill, suspended their meetings on March 23 for the period of ten days or so that Chairman Wheeler will be away from Washington on a trip to Los Angeles, Calif. Meanwhile the work of drafting the conference report will proceed, and it is expected to be pretty well in shape for final approval by the conference committee when Senator Wheeler returns, it being understood also that the House conferees will at the same time endeavor to work out something on the Harrington amendment.

The conferees left their March 23 meeting without making any announcement other than to reveal that the general agreement had been reached; and they are reported to be held silent under a mutual pledge to reveal nothing until their official statement, expected last week or early this week, but now postponed until Senator Wheeler's return, is issued. Nevertheless, it is understood that the through-routes provisions which snagged a few of the conference session will be included in the final bill in a compromise form which undertakes to give some measure of protection to an originating carrier's long haul.

Another matter which consumed much of the conferees' time—forwarder regulation—is out. That became known this week when separate bills for the regulation of forwarders were introduced in the Senate and House, respectively, by Conferee Reed, Republican of Kansas (for Chairman Wheeler and himself), and Conferee Lea, chairman of the House committee on interstate commerce. Two of these forwarder-regulatory bills went into each branch of Congress—all "by request." S. 3665 and H. R. 9089 are identical bills embodying the draft prepared by Chairman Eastman of the Interstate Commerce Commission which was before the conferees in the form of a proposed Part IV of the Interstate Commerce Act, as noted in the *Railway Age* of March 16, page 488. S. 3666 and H. R. 9090, also identical bills embody modification of the Eastman draft in accordance with the views of the Freight Consolidators & Forwarders Institute. In other words, the latter would permit forwarders to enter joint-rate arrangements with all agencies of transportation, whereas the Eastman bill would require them to pay regularly-published tariff rates; also, it has different provisions dealing with control of forwarders by railroads and their affiliates. The Eastman bill stipulates that after January 1, 1941, it shall be unlawful for any carrier, other than a forwarding carrier, to continue to hold "any interest whatsoever" in a forwarding carrier; the Institute bill would leave the matter up to the I. C. C., except for a "grandfather" clause to leave undisturbed the relationships existing on July 20, 1937.

The Institute would also make the latter the general "grandfather" date, relieving forwarders then and since in operation of any requirement to make a showing of public convenience and necessity to obtain certificates. The "grandfather" date in the Eastman bill is August 1, 1937. The July 20, 1937, date would give "grandfather" rights only to those in operation when the commission handed down its decision holding that forwarders are not subject to the Act as it now stands. In that connection, Mr. Eastman, in the letter transmitting his draft to Conferee Lea, had this to say: "Following that decision, many alleged forwarding companies were created, particularly by or on behalf of motor carriers and for the apparent purpose of enabling concessions in rates to shippers when necessary to get business . . ." In the latter connection one of the conferees stated this week that he had been advised that there were 20 forwarding companies in operation when the July 20, 1937, decision was handed down by the I. C. C.; now there are about 1,500.

With respect to these separate forwarder bills it is understood to be the plan of the Senate and House committees on interstate commerce to set them for early hearings in an endeavor to obtain action at the present session of Congress. On the Senate side such hearings will be consolidated with those on Senate Resolution 146, calling for a Senate interstate commerce committee probe of railroad methods of handling forwarder, l.c.l. and express traffic. Last fall Chairman Wheeler appointed a sub-committee consisting of himself and Senator Hill of Alabama, Democrats, and Senator Reed, Republican of Kansas, to conduct this "146 investigation"; but the hearings, originally scheduled for last November, were postponed until the committee had completed its work on S. 2009.

Despite the conferees' success in reaching their general agreement before Senator Wheeler's departure, it is quite likely that action on the conference report will now be delayed until the latter part of April. It will undoubtedly be necessary to hold a couple of sessions after Mr. Wheeler's return to review the work done during the recess by the legislative drafting service and I. C. C. staff members who have been working with the conferees; also, to pass upon the conference report's final form. Then there is apt to be some little additional delay in getting the conference report up for consideration in the Senate and House.

While there has been some let-up in that connection of late, some pronouncements on S. 2009 continue to find their way into the pages of the Congressional Record. Speaking in the House on March 20, Representative Bland, Democrat of Virginia and chairman of the House committee on merchant marine and fisheries, addressed himself to Senator Wheeler's recent radio talk wherein the Montanan had said that "The water carriers who are getting subsidies as well as huge loans from the government at very low rates of interest should be the last to complain about regulation." Mr. Bland complained that this statement was "misleading" when "given prominence out of its context"; and he thought "some amplification of the facts" appeared to be in order. The Virginian went on to point out that intercoastal and coastwise water carriers are now regulated by the United States Maritime Commission, adding that only the transfer to the I. C. C. is involved in S. 2009.

The regulation imposed for the first time, he continued, would affect carriers on the inland waterways; and neither those nor the coastwise nor intercoastals are eligible to participate in the subsidy program of the Merchant Marine Act of 1936. Moreover, Mr. Bland next pointed out, "no loans have been made by the Maritime Commission to any carrier by water affected by the terms of the pending legislation."

Into the appendix to the March 21 issue of the Record went a radio address delivered recently by Senator Sheppard, Democrat of Texas, who warned against what he regarded as undue haste in the enactment of legislation for the regulation of water carriers by the I. C. C. Extending his remarks in the March 26 issue Representative Van Zandt, Republican of Pennsylvania, inserted an editorial entitled "Railroads Seek Only an Even Break" which had appeared in the Carbondale (Pa.) Leader.

**The Wazee Terminal on Its Opening Day, Showing the Growers' Market in the Foreground and the Stores Buildings Beyond**

# Five Roads Join in Building Modern Produce Facilities

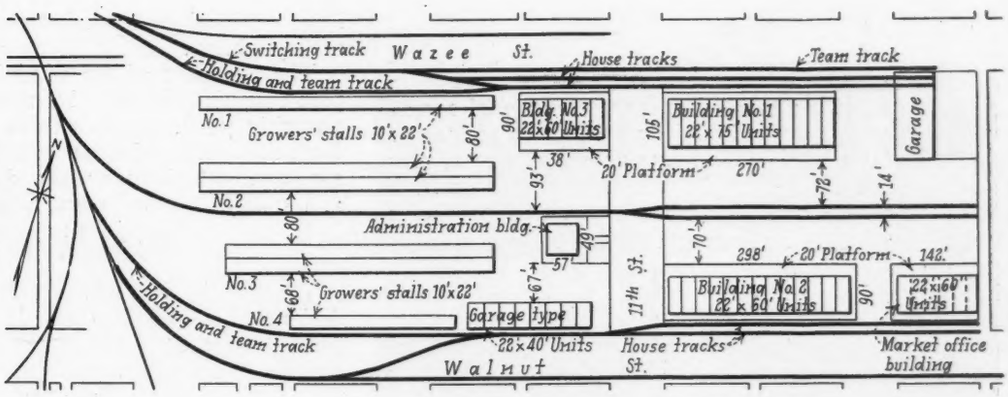
## Pool interests to give Denver, Colo., a modern terminal with up-to date layout and equipment

JOINING together, five of the railroads serving Denver, Colo.,—the Atchison, Topeka & Santa Fe; the Chicago, Burlington & Quincy; the Chicago, Rock Island & Pacific; the Colorado & Southern; and the Denver & Rio Grande Western, have provided that city with a highly modern produce terminal and growers' market, which will insure to that city a greater variety of high grade produce, give to its large contiguous producing area a wider outlet for its crops, and, in turn, insure to the railways increased revenue from the handling of perishable produce into and out of the Denver area. At the same time, the new facilities, with their direct rail service, reduce both the time and cost of handling produce and the losses which have been incurred in the past through spoilage.

The outstanding feature of the new terminal, which is known as the Wazee market, and which is being operated by the Denver Market & Produce Terminal Company, Inc., a joint subsidiary of the five roads involved, is that it brings together at one point all phases of the perishable produce trade, relieving many old scattered facilities, including an inadequate, obsolete and unsanitary city market, without rail facilities, built about 40 years ago. Of equal interest, however, is the fact that within its new produce stores buildings it provides up-to-date facilities for the storage and conditioning of all classes of produce under the most favorable temperature and humidity conditions, a factor which is of large importance in the Denver area, which has a wide daily fluctuation in temperature and relatively low humidity, both of whch are anything but conducive to the preservation of the best quality in most classes of fresh fruits and vegetables.

The new market is located on a tract of land within the city, about one-half mile southwest of the Union Passenger station, not far from the site of the old city market, and convenient to the long-established central wholesale and retail market districts of the city. The area occupied, which is approximately 1,450 ft. long by 400 ft. wide, lies adjacent to Wazee street, from which the market derives its name, and is crossed by only one thoroughfare. Most of the property involved in the site was owned by the Santa Fe, but was under lease in small plots to a large number of tenants for a wide variety of purposes, one of the more important of which was the storage of junk. As a matter of fact, this entire area, because of the character of its occupancy, had long been an eyesore to the city, and its transformation into a modern produce terminal was accepted as an important civic improvement.

Indicative of the character of former occupancy and, incidentally, the extent of the work involved in making the site available, is the fact that clearing it required the removal of 34 buildings, ranging from one-story shacks to two-story brick or frame houses or buildings, and of approximately 18,000 tons of scrap and junk as well as thousands of tons of debris. Removing these buildings and junk piles was no small factor in the terminal development, especially since a large part of this work fell upon the railroads through lack of co-operation on the part of many tenants, some of whom had to be evicted. Clearing of the site was begun on March 11, 1939, and such part as had to be carried out by the railroads was done under contract with trucks and cranes. Simultaneously with this work, grading was carried out with power shovels, trucks, cranes, tractors and bulldozers, this requiring the handling of approximately 11,000 cu. yd. of material.




**General Plan of the Wazee Market, Showing the Stall Arrangement of the Buildings and Track Facilities**

Under a forced schedule to secure the early completion of the terminal to permit the handling of the peak of the 1939 produce movement, construction of the new building facilities was started just as quickly as the clearing and grading were completed. These new facilities include four multiple store-unit buildings for lease to dealers for the display, conditioning and sale of produce; a garage-type unit for the use of local produce distributors by truck; a 60-car garage unit for the housing and servicing of trucks; an administration building, housing general facilities and a restaurant; and four growers' sheds which provide 248 stalls for the display and sale of produce by local growers. These various building facilities are laid out as shown on the accompanying plan, with wide paved driveways between them, suitably marked into lanes and parking areas to avoid the congestion or confusion of traffic during the peak daily periods at the terminal when several hundred trucks arrive and depart.

The terminal area is provided with storm and sanitary sewers, two independent water supplies, electrical distribution systems to meet all requirements for illumination and power, and, as shown on the plan, is served by approximately 9,600 ft. of house, team, switching and hold tracks. This trackage has direct connection with the freight terminal tracks of the Denver & Rio Grande Western which, in turn, afford convenient interchange with the tracks of the other roads jointly interested in the produce facilities.

### Latest in Produce-Handling Facilities

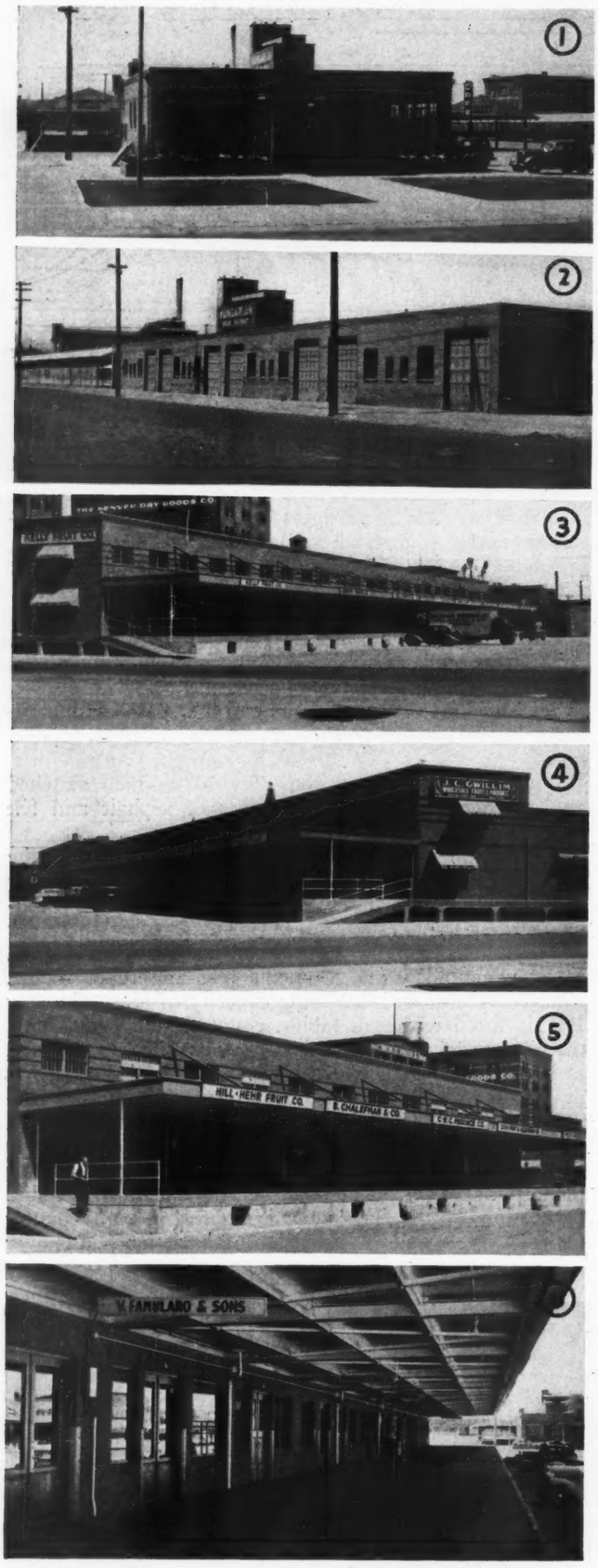
A feature of the terminal, in addition to its adequacy and convenient layout, and the fact that it lends itself to expansion to meet future demands, is the modern character of the building units provided, which afford every necessary facility for the handling, conditioning and sale of produce in accordance with the specific requirements of the individual dealers. These facilities include insulated rooms with refrigeration, heating and humidification control as desired, and special produce processing and handling equipment, such as washing and packing machines and conveyors, elevators, platform scales and office areas for the individual dealers.

All of the buildings are of the same general type of architecture and construction with concrete foundations and basement walls, concrete basement and first-level floors, and steel frame superstructures enclosed with hard-burned red Harvard brick walls and large areas of steel sash.

Likewise, they are all roofed with two-inch matched lumber covered with various types of asphalt and felt roof coverings.

The administration building, located centrally in the terminal area, is a one-story structure 57 ft. long by 49 ft. wide, with a basement, the first floor being occupied largely by a restaurant, but also affording space for a market master's office, a railroad market agent's office, a telegraph office, and women's rest and toilet rooms. The restaurant, with a seating capacity of approximately 100, is fitted with oak tables, counters and chairs, and has attractively paneled plaster walls and ceiling, and a linoleum-covered wood floor. Artificial lighting is by means of ceiling-hung fluorescent lighting fixtures, and heating is effected by means of a ceiling-hung unit heater, supplied with steam from a stoker-fired boiler in the basement. Other features of the restaurant include modern sanitary cooking and serving facilities, colorful decoration of the interior, with blue linoleum counter and table tops, and the provision of Venetian blinds over

**Looking Through One of the Double-Stall Growers' Sheds, Showing Details of Construction**




**The More Important Store Units at the New Produce Terminal**

(1) The Administration Building; (2) the Street Side of the Eight-Unit, Garage-Type Stores Building; (3) Produce Stores Building No. 1; (4) Produce Stores Building No. 2; (5) Produce Stores Building No. 3; (6) Driveway-Side Platform of Produce Building No. 2, Which Is Typical of Those of the Other Stores Buildings

large sectional glass windows which afford an abundance of daylighting.

The basement of the administration building is occupied essentially by a boiler room, a transformer vault, a pumping plant, a men's toilet room and storage areas. Both the men's and women's toilet rooms are modern and sanitary, with plaster walls and ceilings, copper plumbing, and suitable lavatories and water closets.

### Modern Sales Buildings

Three of the four main stores buildings at the terminal, designated as buildings No. 1, 2 and 3, are of the same general type of construction, involving a basement, a first floor at car-floor level, and a two-story section along the front, providing additional office and brokerage space clear of the main produce-handling floor. The fourth building, a two-story structure, sometimes called the Wazee Market Office building, is similar to the others on the basement and first floor. All of the store buildings are surrounded by reinforced concrete platforms, protected from the weather by canopies, the platform along the track side in each case being 10 ft. wide, and that along the trucking side 20 ft. wide. The canopies, which are cantilevered from the building faces, providing unobstructed platform areas, are of steel frame construction with wood decks.

Building No. 1, which is approximately 270 ft. long by 75 ft. wide, provides 12 store units each 22 ft. wide by 74 ft. deep; building No. 2, which is approximately 298 ft. long by 61 ft. wide, provides 13 store units, each 22 ft. wide by 60 ft. deep; building No. 3, which is approximately 138 ft. long by 61 ft. wide, provides 6 store units, also 22 ft. wide by 60 ft. deep; while the Market Office building, the first floor and basement of which are occupied by a local dealer, is approximately 142 ft. long by 61 ft. wide, and is divided into six open bays, each of the same size as the units in Buildings 2 and 3. A feature of the office building, differing from that of the other buildings, is a basement of greater depth in which are located seven modern banana rooms. Furthermore, on the second floor of this building a series of offices open on each side of a long central corridor. Men's and women's toilet rooms and a large auditorium or meeting room for dealer group activities are also provided. This entire second floor area is finished with plaster walls, and has acoustically-treated and insulated ceilings designed for future air conditioning.

### Readily Adaptable to Future Changes

Throughout the main floors of the different store buildings, the interior walls are of a light buff brick above a four-foot wainscoting of darker jumbo glazed tile. The partitions between the different sales units, which were arranged initially to meet the requirements of the tenant dealers, are only four inches thick, which makes it possible to adjust them readily in the future to meet changed conditions. The front face of each dealer area is provided with glass-paneled double doors and large display windows, while other doors and windows of adequate size face the track side. Other structural features of these buildings are that their roofs are insulated on their undersides with one inch of Celotex, and that all office partitions on both the first and second floors are of plywood and glass-panel construction. Still another feature of the stores buildings is that their basements extend continuously beneath the front and rear platforms, and that each store unit has platform hatches, both front and rear, whereby produce can be moved directly into the basement area from either cars or trucks without passing

through the first floor space. For the handling of produce in this manner, each dealer is supplied with a portable metal-lined frame chute. These hatches and chutes are supplemented by elevator service for every dealer, either alone or in conjunction with a neighbor dealer, the elevators being of the automatic-electric type of 1500-lb. capacity, with push-button control and safety gates.

### Air-Conditioned Rooms

Most of the dealer stores, as required, are fitted with built-in, fully-insulated rooms, which are air-conditioned to give a wide range of temperature, humidity and circulation control to meet the particular requirements in the holding or ripening of the various classes of produce handled. These rooms, which are located on the main

**A Typical Banana Room at the Terminal, Showing the Spray Humidifying System Overhead**

floor or in the basement as space and efficient handling dictate, range in size from one to five-car capacity to meet the specific needs of the various dealers. Their walls and ceilings are constructed of four inches of cork board applied in two 2-in. layers cemented together with a bituminous cement, having both interior and exterior faces surfaced with ½ in. of cement plaster. The floors of the rooms are insulated with three inches of cork, protected on top with a four-inch slab of concrete. All of the rooms are electric lighted and are fitted with heavy refrigerator-type doors.

A feature of the air-conditioning facilities at the market is that each room is equipped for the specific type of produce to be handled in it—that is, for different degrees of cooling, heating, ventilation and humidification, in combination or separately, as required. Thus, whereas some of the rooms are equipped for cooling alone, down to 32 deg., with suitable ventilation, others, such as those for the holding and subsequent ripening of bananas and tomatoes, are equipped for heating as well as cooling, and for humidity control as well as ventilation.

### Types of Equipment

The air-conditioning equipment, all of which was furnished by the York Ice Machinery Corporation, is independent for each dealer's store and is essentially of two general types—the pipe-coil type, which is designed to produce temperatures down to 32 deg. F., and the fan or blower type, which, with forced air circulation, is designed to produce temperatures down to 38 deg. F. In both types, the condensing units, or ice machines, employing Freon-12 gas, are located at convenient points in the basement, outside of the refrigerated rooms, and supply their liquefied gas through warm pipes direct to the cooler units, where, through release of the pressure and rapid expansion, the liquid changes back to gas at low temperature.

The refrigerating requirements of the various rooms are met by variations in the size or number of condensing units and by the capacity of the cooling coils or the number and capacity of the blower units, supplemented by thermostatic control, which maintains the temperature called for. Altogether there are 15 refrigerating condensers serving the various dealers, these ranging from 1½-hp. units with a rating of 16,000 b.t.u. per hr., to 5-hp. units with a rating of 57,000 b.t.u. per hr. All of the condensing water employed by the ice machines is furnished by a private, shallow-well water system at the terminal, employing a Pamona vertical, multi-stage centrifugal pump as its primary pumping unit, which is located in the basement of the administration building, and a Peerless, vertical displacement pump, located in the basement of the office building, which is employed as a booster unit. This water system, which employs copper piping throughout, in sizes ranging from ½ in. to 2 in., provides condensing water at an average temperature of 57 deg.

The heating equipment in the various produce rooms is of several different types. In the office building, the only stores building equipped with a steam heating plant, the heaters are of the steam-coil type, while in the other stores buildings they are of either the electric or gas-heater type. Similarly, the humidifying equipment varies

**The Interior of One of the Tomato-Ripening Rooms, Showing the Air-Conditioning Unit with Which It Is Equipped. This Room Has Under-Floor Circulation**

in the different units, depending largely upon requirements, ranging from fine water sprays, alone or in combination with steam jets, to water evaporators integral with the gas and electric heating stoves. All of the heating and cooling facilities are automatic in operation, while all of the humidifying equipment is controlled manually.

In addition to the favorable conditions afforded dealers at the terminal for the holding and conditioning of their produce to minimize loss and to improve quality, various dealers have been afforded special equipment for the preparation or handling of their products. This equipment includes monorail, chain-type conveyors for the handling of bananas between cars and the produce rooms, tomato unwrappers to remove the tissue wrappings in which most of the green tomatoes are received

(*Continued on page 593*)

# Combustion Turbine As Prime Mover For Locomotives*

## A proposal combining the turbine with hydraulic transmission and worm-gear drive, all developed in other fields

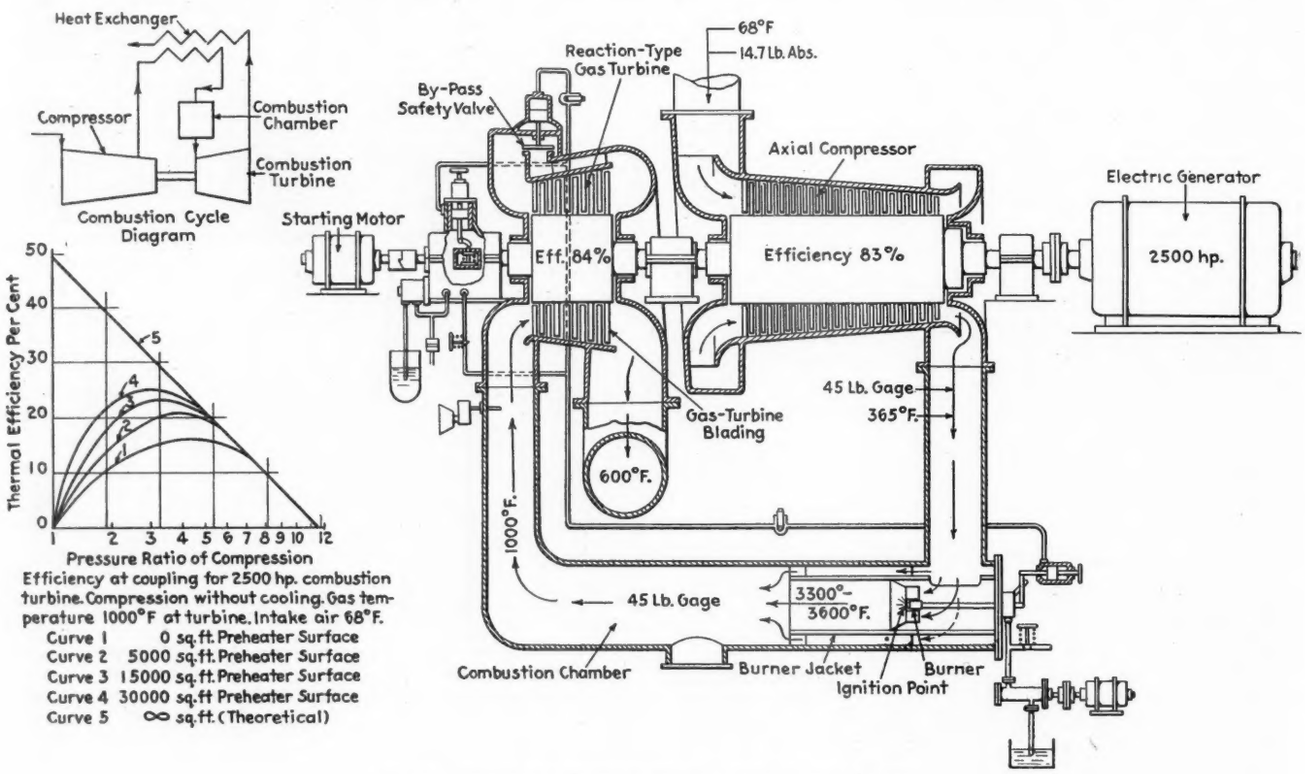
MORE than ten years ago the Steam Turbine and Condensing Locomotive Committee recommended and proposed a design for a type of motive power which would have a uniform continuous torque or flow of power to the driving axles and eliminate vibration. The motive power proposed was a steam turbine used almost exclusively in large power generating plants. A design of such locomotive with this kind of power has recently been built and is undergoing further development.

A new method of power generation has been developed during the last five or six years in that a practical method of utilizing an old heat cycle was discovered in connection with work on superchargers for internal-combustion engines. This is the gas turbine, or more correctly, a combustion turbine, as it is operated by the products of combustion. Several plants using the combustion turbine are operating in this and foreign countries and the horsepower developed by such plants runs into the thousands. One of the first installations in this country was in an oil refining plant in connection with a Velox type steam boiler used in the process of distillation. The service obtained at this plant was so satisfactory that several other plants installed similar equipment.

This type of combustion turbine has been developed by Brown, Boveri & Company, Ltd., Baden, Switzerland. This company's engineering director, Dr. Adolph Meyer, read a paper at the Oil and Gas Power Division Session of The American Society of Mechanical Engineers, at the semi-annual meeting at San Francisco in July, 1939. The subject of this paper was The Combustion Gas Turbine, Its Present Stage of Development and Prospects for the Near Future. In his paper the author disclosed that Brown, Boveri & Company has an order from the Swiss Federal Railways for a 2,200-hp. combustion-turbine locomotive, which is under construction.

The very promising reports from combustion turbines in service and the engineering possibilities of this development so interested the Allis-Chalmers Manufacturing Company, Milwaukee, Wis., that this company has made not only a thorough check of this design and construction, but has actually tooled up and built several of these combustion turbines in sizes from 3,000 to 6,000 hp.; these are in service in several of the large oil refinery plants. The Allis-Chalmers Manufacturing Company has taken out a license to manufacture the combustion

* From the report of the Turbine and Condensing Locomotive Committee presented before the 1939 meeting of The Railway Fuel and Traveling Engineers' Association. The chairman of the committee is L. P. Michael, chief mechanical engineer, Chicago & North Western.




**A Diagram of the Simplest Form of Combustion Turbine**

turbine in this country. Furthermore, it has spent a very large amount of time, energy and money during the last two years developing designs for the application of the combustion turbine to a locomotive.

These designs have been developed for application of the combustion turbine with electric transmission and also with mechanical transmission in order to have complete information as to weight, cost, efficiency and general practicability of the two types of transmission.

After full consideration of all factors in connection with the two types of transmission, it was decided by the Turbine and Condensing Locomotive Committee of the Railway Fuel and Traveling Engineers Association to make a proposal for the installation of the mechanical transmission to a combustion-turbine locomotive. In order to compare it with existing steam and Diesel-electric locomotives handling modern high-speed passenger trains, it was decided to make such proposal to cover a locomotive of 5,000-hp. capacity.

The next step in this development was to decide upon the type of mechanical transmission to be used, and it was imperative that it should come within reasonable overall dimensions, weight and cost. It also should be rugged, efficient, foolproof, and easy to operate and maintain.

After carefully checking into this matter, it was decided to use a two-speed hydraulic transmission in duplicate, one set for forward motion and the other for reverse motion.

### The Combustion Turbine

The component parts of this turbine shown on the drawing are as follows: *A*, axial compressor; *B*, combustion chamber; *C*, ignition point; *D*, burner; *E*, burner jacket; *F*, gas turbine blading; *G*, reaction-type gas turbine; *H*, bypass safety valve; *I*, electric generator, and *J*, starting motor. (A small Diesel engine may be used.)

The cycle of operation is shown in the drawing and includes a heat exchanger, not shown on the main construction diagram. The cycle of operation can probably be best described by referring to the diagram.

To place the equipment in operation, first switch on the starting motor *J* which, through an extension shaft, turns the axial compressor *A*, turbine *G* and generator *I*. The compressor draws in air at an assumed temperature of 68 deg. and at atmospheric pressure and compresses it to about 45 lb. gage, and in so doing heats it to about 365 deg. F. when up to speed. This heated air then passes on to the burner at *D* and mixes with fuel oil sprayed into the space around the ignition point *C*. An electric ignition system is to be provided. Combustion then takes place in the space at the left of the ignition point *C* inside the burner jacket *E* and continues on into combustion chamber *B*.

Inside the burner jacket *E* the combustion temperature may rise to 3,300-3,600 deg. F., but these gases of combustion are cooled by mixing with the air at 365 deg. F. moving leftward through the annular space around the burner jacket *E* into the combustion chamber *B*. The gases of combustion are thus cooled to about 1,000 deg. F. before passing on to the gas turbine *G* and are exhausted through the turbine blading at *F* to the atmosphere at about 600 deg. F., or they may be passed through a heat exchanger as indicated in the combustion cycle. In round figures, when using a gas turbine *G* of 10,400 hp. and operating the equipment as referred to above with turbine and compressor efficiencies of about 84 and 83 per cent, respectively, a net of about 2,500 hp. can be developed after deducting 7,900 hp. required to drive the compressor. The thermal efficiency of this cycle is shown approximately in the diagram. The speeds of the compressor and turbine are about 4,000 r. p. m.

Since the temperature and pressure of the gases of combustion to the turbine are about 1,000 deg. F. and 45 lb. gage, respectively, when no heat exchanger is used, the approximate efficiency will be found on curve *1* immediately above the compression ratio *3*. It is about 15 per cent. With combustion air preheaters (heat exchangers) using the exhaust gases from the turbine to preheat this air, the efficiency of the cycle may be increased considerably, depending on the amount of preheating surface and the final temperature of the air to the burner. This is shown on curves *2*, *3*, and *4*, curve *4* indicating an efficiency of about 25 per cent maximum.

In Dr. Meyer's paper referred to above, he states that, with combustion gases to the turbines at 1,200 deg. F. and suitable preheaters and reheaters between two turbine stages, an efficiency of about 33 per cent can be obtained. This is approximately the same as claimed for a Diesel engine. Based on experience with a number of Diesel-engine supercharging units, Dr. Meyer believes that it will be possible to utilize a temperature of 1,200 deg. in the near future and also expresses the opinion that temperatures around 1,800 deg. F. are in the realm of possibility.

The hydraulic torque converter and coupling were both originated by Dr. Foettinger of Germany. The coupling was developed in England by Harold Sinclair, while the combination of torque converter and coupling was perfected in Germany by the J. M. Voith Engineering Works. This equipment is now being built under license or handled by the American Blower Company, Detroit, Mich.

### Hydraulic Torque Converter and Coupling

In the proposed designs a combined hydraulic converter and hydraulic coupling are enclosed in a common housing in such a manner that the converter can be used for starting and lower speeds and the coupling for continuous higher speeds. The driving shaft is keyed directly to the impellers or driving members for both the converter and coupling. The runners, or driven members of both the converter and coupling are keyed directly to the driven shaft.

The torque converter, as the name implies, is used to convert or increase the torque of the driven shaft to nearly double that of the driving shaft, but with considerable loss of power at low speeds. In other words, the converter operates at low efficiency at starting and at low speeds in order to obtain the desired increased low-gear starting effect. The efficiency of the converter increases from zero at starting to about 84 per cent at about 35 miles an hour and then drops off to about 77 per cent at 50 miles an hour.

The efficiency of the coupling * increases from about 89 per cent at 50 miles an hour to about 98 per cent at 120 miles an hour, under full load of 1,250 hp. for the size of coupling used. This coupling is only 29½ in. in diameter over flanges and 27½ in. long. It will transmit up to 1,500 hp., but with slightly lower efficiency than for the nominal rating of 1,250 hp. The efficiency, however, increases at lower ratings.

The method of operation is to admit a light transmission oil flowing (but not under pressure) to the con-

* The coupling has a constant torque ratio irrespective of speed differentials between the driving and driven runners.—EDITOR.

verter, the impeller blades of which are of such shape that they throw the oil with multiplying force against the blades of the runner,† driving it and the driven shaft to which it is keyed.

When the speed of the locomotive increases to about 50 miles an hour, the oil supply is cut off from the converter and the oil in it quickly drains outward and drops to the lower portion of the housing, from which it is pumped back to the oil cooler. In the meantime, oil has been admitted to the coupling. This oil is thrown from the impeller vanes against the runner vanes and transmits power in so doing.

To cut off the power from the coupling the oil is shut off and is automatically discharged quickly from the coupling. There is no metal contact between the impellers and the runners and the oil, when being used, is pumped continuously through a cooler and back to the converter or coupling, whichever is being used. When there is no oil in the converters or couplings, they turn freely with only air windage resistance.

The reverse motion sets are idling and turning in the opposite direction and at the same speed as the driving sets and the windage losses in power are only 2 per cent at 85, 3 per cent at 100, and 5 per cent at 120 miles an hour. There are several practical methods of considerably reducing this.

The maximum speed of the converters, couplings, worm and driving shafts will be 3,000 r. p. m.

### Hydraulic Transmission Combined with Cone Worm and Gear Drive

The turbine shaft drives the forward-motion pinion, which in turn drives a gear on each of the two converter and coupling shafts, on the opposite end of which are mounted gears which drive other gears on the driving shafts to each of the truck driving axles, two per truck.

On each driving axle is mounted a worm gear which is driven by a cone worm mounted on a shaft which extends from a hydraulic transmission carried on the main locomotive frame.

Suitable universal couplings are mounted on each driving shaft to permit movement of this shaft due to movement of the driving axles.

As far as can be determined, this hydraulic transmission will have a higher efficiency at the higher speeds of the locomotive and will stand more abuse than an electrical or a direct gear transmission. The hydraulic transmission cushions all shocks between the driving axle and the turbine and forms an equivalent to a differential between the two driving axles on each truck and thus makes it possible to run with a reasonable difference in the diameters of the two pairs of driving wheels even though they are driven from the same driving pinion on the turbine shaft. It also permits a rugged, practical dynamic brake on all driving wheels which will work in conjunction and harmony at all times with the automatic air brakes. This should greatly reduce driving tire and other wheel tread wear.

The cone type worm and worm gear proposed are manufactured by the Michigan Tool Company of Detroit, Mich., and are of the lightest weight but of the most rugged and efficient construction and, according to records, will give long life with low maintenance cost.

The universal joints will be furnished by the Spicer Manufacturing Company, located at Toledo, Ohio, which is one of the largest manufacturers of this type of equipment.

† Except for efficiency losses, the horsepower input and output in the torque converter are the same irrespective of speed differentials between the driving and driven runners. This is effected by stationary reaction blading attached to the housing through which the oil returns from the driven runner to the intake of the impeller on the driving shaft.—Editor.

### A 5,000-Hp. Combustion-Turbine Locomotive

The locomotive which the committee proposes would consist of a long steel fabricated main frame and cab carried on two eight-wheel trucks with cast-steel frames. Each truck has two pairs of driving wheels and two pairs of guiding wheels. The wheels are located outside the journal bearings to facilitate changing tires without dropping the wheel units. The length of the locomotive would be 88 ft. over the coupler pulling faces, the overall cab width, 10 ft. 2 in., and the maximum height, 15 ft. 3 in. The locomotive would weigh 500,000 lb. in working order. It would develop a maximum starting tractive force of 70,000 lb. and attain a maximum speed of 120 miles an hour. The tractive force at the axles through the range of operation of the torque converter would drop to 28,000 lb. at 50 miles an hour, and from 50 miles an hour through the range of operation of the hydraulic coupling, to about 13,300 lb. at 120 miles an hour. The locomotive will contain two main power plants, each consisting of one turbine-compressor set with a separate combustion-turbine mounted in the frame well with four hydraulic transmission units, two for forward motion and two for reverse, each driving axle being driven from its own transmission.

The auxiliaries include a small Diesel engine for starting one of the power units and a small combustion turbine for starting the other power unit and for furnishing electric power for lighting, battery charging, auxiliary motors, etc. When the main combustion turbines are not operating, an additional electric generator driven by the small Diesel engine will take care of standby auxiliary power requirements. There are five large fans, one motor-driven and four turbine-driven, for cooling the transmission oil. The proposal calls for three steam boilers of 2,250 lb. per hour capacity at 200 lb. pressure for train heating.

### Summary of the Advantages Attainable

The advantages which the committee sets forth as possible of attainment with the combustion-turbine locomotive may be briefly summarized as follows: No water required except for train heating. Low-priced Bunker C fuel oil can be used at a cost per gallon about half that of the more refined Diesel oil. Locomotives with capacities up to 6,000 hp. can be built in single units instead of two or three as required with the Diesel. The resulting reduction in locomotive weight should make it possible for a 5,000-hp. combustion-turbine locomotive to handle the same train as a 6,000-hp. Diesel locomotive with the same combined weight-horsepower ratio. The locomotive is free from reciprocating parts and has the least number of parts and equipment to service, inspect, and maintain. The combined cost of fuel oil and lubricating oil for a 5,000-hp. combustion-turbine locomotive should be approximately one third less than that for a 6,000-hp. Diesel locomotive required for the same train. Not only will the reduction in the number of wheels, axles, journal boxes, brakes, couplers, and steam, air and water connections favorably affect the first cost comparison with Diesel locomotives but will reduce the amount of servicing and maintenance as well as the amount of store stock which will have to be carried.

The possibilities of burning pulverized coal are greater with the combustion-turbine locomotive than with either the steam or Diesel locomotive.

# Suggests Correcting "Abuses" in Car Ordering

WASHINGTON, D. C.

INTERSTATE Commerce Commissioner Clyde B. Aitchison has forwarded to Vice-President A. F. Cleveland of the Association of American Railroads a report on "abuses and irregularities in ordering and furnishing cars" which was prepared by a three-man committee of the commission's staff. While he pointed out that the report "reflects only the views of the three members of the committee based upon a study of the available data, and the commission is in no sense committed to it," Mr. Aitchison nevertheless believed that the findings and recommendations deserved "the serious thought and attention of the railroads."

The "abuses and irregularities" to which the report is addressed are those which result from the practice on the part of shippers of ordering cars of a type or capacity not actually wanted and being furnished by the railroads with the cars actually wanted, the shippers thereby obtaining some rate or other advantage by the billing of their shipments on the basis of charges and minimum loading requirements applicable to the cars ordered. The report took the form of a memorandum to Directors Hardie, Bonneville and DeGroot, respectively, of the I. C. C. Bureaus of Traffic, Inquiry and Service, who appointed the three-man committee at the direction of Commissioner Porter. Members of the committee were Burt L. Smelker of the Bureau of Inquiry, C. G. Jensen of the Bureau of Traffic and C. C. Wall of the Bureau of Service.

### Voluntary Corrective Action Suggested

The report recommends that its suggestions for correcting the "existing irregularities" be brought to the attention of the railroads with a view to ascertaining whether the carriers would be disposed to adopt voluntarily the suggested amendments to their tariffs. "If they are unwilling to do so and can advance no satisfactory explanation for their unwillingness," Messrs. Smelker, Jensen and Wall continued, "we believe then the commission should assign the matter for formal hearing, not on a general order of investigation, but on an order to the carriers to show cause why they should not be required to amend their tariffs as suggested in this report."

Among other comment in the report is the suggestion that the practices criticized have the effect of driving small-capacity cars out of use. In that connetion it seemed to the I. C. C. committee "by reason of truck competition and because of the change in merchandising practices in recent years under which purchases and sales are made in smaller units than formerly, it would be distinctly in the interest of the railroads to try to bring their small cars back into use, rather than to force them into disuse." At another point the report has this to say: "We do not mean to suggest that this pronounced shift toward the larger box cars has resulted solely from the use and abuse of Rule 34, but we do think that the rule and its defects have been an important contributing factor in the result, and we think also, as before stated, that in thus giving shippers a premium for using the larger cars and practically forcing the smaller cars out of service the railroads have in measurable degree disabled themselves from meeting truck competition as effectively as they might otherwise have done."

The "abuses," according to the report, divide themselves into three general classes as follows:

1. In shipping heavy bulk freight for which the minimum weight is the marked capacity or a percentage of the marked capacity of the car, there is a practice when small shipments are to be made of ordering cars of less capacity than any in general service, not with the expectation of obtaining cars of the capacity ordered, but merely to obtain transportation subject to a reduced minimum weight.

2. The minimum weight for double-deck stock cars is commonly 50 per cent greater and the rate per hundredweight usually 15 per cent lower than for single-deck cars of the same length; and there is a practice of "ordering" double-deck cars with the expectation of receiving and using twice the number of single-deck cars, thus defeating both the rate and the minimum weight.

3. Minimum weights for light and bulky freight are usually graduated under Rule 34 of the Classification according to the length of the car ordered by the shipper, and there is a practice of "ordering" short cars when longer cars are wanted or of "ordering" a single long car when two shorter cars are wanted, the purpose of these orders being to avoid observance of the minimum weight for the car or cars actually desired and used.

### "Abuses" on Bulk-Freight Shipments

The report proceeded to discuss "these three types of irregularities in the order in which they are listed above, which, it is to be observed, is the inverse order of their importance." With respect to the first type, Messrs. Smelker, Jensen and Wall assert that "tariff authority rarely exists for observing any but the minimum for the car actually used in such cases." In the main the shipments involved are bulk freight in open-top equipment; but "there are also certain kinds of box-car freight for which the minimum is sometimes the marked capacity, although, as for open-car freight, the tariffs rarely ever contain a carriers' convenience rule." (The latter is that stipulation in some tariffs which provides that if the carrier "for its convenience" furnishes a larger car than ordered, the minimum shall be that fixed for the car ordered "unless the loading capacity of the car furnished is used," in which case the minimum shall be that for the car furnished.)

As an example of the "abuses" in connection with the ordering of cars for bulk freight shipments, the report told of an instance wherein a 70,000-lb. carload of flour was shipped in an 80,000-lb. capacity car, the minimum weight being the marked capacity of the car. The billing bore a notation "70,000-capacity car ordered," and "on the basis of that notation, although without any tariff authority, charges were assessed on the actual weight." The citation of this example is followed by reference to data which shows that on July 1, 1938, "there were only 916 cars with a marked capacity of 70,000 pounds out of a total of 749,000 in service, and hence the order for a 70,000-capacity car in the instance cited above could not have been given (if, in fact, it was given at all) with any reasonable expectation that such a car would be furnished."

Commenting further on the data referred to, Messrs. Smelker, Jensen and Wall point out that 51 per cent of all box cars have a marked capacity of 80,000 lb., 37 per cent have a marked capacity of 100,000 lb., only 3.2 per cent have a marked capacity of 60,000 lb. while 4.8 per cent have a capacity of 110,000 lb. "It is a striking fact," they add in the latter connection, "that while 60,000-pound-capacity box cars are commonly thought of as a more or less standard size and 110,000-capacity cars are considered an unusual size, there are actually 50 per cent more box cars in service with a marked capacity of 110,000 pounds than there are with a marked capacity of 60,000 pounds."

The report's recommendations with respect to open-

car freight where the minimum is the marked capacity of the car are that the tariffs should be amended by making 100,000 lb. "the absolute minimum," and by stipulating that carriers will neither obligate themselves to furnish cars of any stated capacity nor accept orders for cars of less than 100,000-lb. capacity. Also, there would be a "carrier convenience" rule permitting the furnishing of two smaller cars in lieu of a single larger car, charges in such instances to be assessed on actual weight, but not less than 100,000 lb. In justification for the 100,000-lb. absolute minimum, the I. C. C. committee states that "the minimum for such freight today, in 96 cases out of 100, is 100,000 pounds or more." With respect to box-car freight subject to minimum weights based on the marked capacity of the car, such as the aforementioned flour shipment, the report's recommendation is "substantially the same," as that for open-car freight, i. e., "that the tariffs should be amended to provide that the minimum will be that for the car accepted and used, but in no case less than 80,000 pounds (or a percentage of 80,000 pounds where the minimum is now a percentage of capacity) subject to a follow-lot rule as above outlined where the carrier for its convenience furnishes a car of less capacity than 80,000 pounds."

With respect to the stock-car situation, the report points out that "carriers' convenience rules" are applicable "practically everywhere" in connection with the transportation of live stock. It adds that "it seems to be a rather general practice of shippers, with, of course, the connivance of the carriers, to obtain 40-ft. cars on 'orders' for 36's, and use the 40's subject to the 36-ft. minimum."

### No "Complete Solution" as to Stock Cars

Nevertheless Messrs, Smelker, Jensen and Wall, after giving considerable thought to these stock-car-ordering "abuses," were "unable to suggest any complete solution." They think that "real hardship" would result from a withdrawal of "carriers' convenience" rules entirely and making the minimum in each case that for the car or cars actually used. They suggest, however, that the "abuses" should be corrected in part at least by making the minimum for double-deck cars twice as great as for a single-deck car. In the latter connection it is pointed out that while the capacity of a double-deck live-stock car is twice that of a single-deck car of the same length, the minimum is only 50 per cent greater, and the rate is 15 per cent lower. The carriers, the report goes on, "would do well to consider making a slight reduction in their minimum weights for single-deck cars and then increasing the minimum for double-deck cars to twice that for single-deck cars." But after making this suggestion the I. C. C. committee refers again to its inability to offer a complete solution, adding that "it would be impossible to remove the 15 per cent differential in favor of double-deck stock cars," It is noted, however, that "the problem of irregularities in the furnishing of single-deck cars on 'orders' for double-deck cars is being gradually lessened, and in time may be altogether eliminated by the increasing use of convertible cars."

With respect to the "abuses" in connection with the application of Rule 34 to shipments of light and bulky freight, the report calls attention to "a widespread practice on the part of shippers of placing nominal written orders for 36-ft, cars and actual oral orders for 40 and 50-ft. cars." The longer cars are "practically always" furnished while the minimum for the 36-ft. car is protected "on the pretense that the longer car was furnished 'for carriers' convenience'." Among the examples of this practice was "one in Pennsylvania where the shipper had on file with the carrier's agent a standing order for 36-ft. cars. The yardmaster or switching foreman, whose duty it was actually to supply the cars, knew nothing of such orders, however. All he knew was that the shipper would not accept 36's. . . . Yet the bills of lading covering that shipper's outbound carloads always bore a notation, '36-ft. car ordered, 40-ft. car furnished for carrier's convenience,' whenever the weight was less than the minimum for a 40-ft. car." Another clause of Rule 34 provides that if a shipper orders a long box car the carrier may at its convenience furnish two shorter cars instead; and "abuses of this portion of the rule are also quite frequent."

### Recommended "Cure" for "Abuses" Under Rule 34

To "cure the abuses under Rule 34" Messrs. Smelker, Jensen and Wall recommend: (1) That the rule be amended to provide that the minimum in every case shall be that for the car accepted and used regardless of what may have been ordered, and that where two cars are furnished each will be treated as a separate unit in assessing freight charges: (2) that the minimum weights under the rule be accurately graduated according to the cubical capacity of the car, in lieu of the present gradations according to length.

"Not many years ago," the report goes on, "it would have been out of the question to withdraw from shippers the right which Rule 34 gives them to protection of the minimum weight for the car ordered, but we think that under conditions now existing and as they will in all probability exist in future, that right fairly can be and ought to be withdrawn. We believe that today the shipper of Rule 34 freight, if he is at all reasonable in his demands, obtains the car he wants practically every time and that the 'carriers' convenience' provisions of Rule 34 have become little more than a vehicle for evading payment of full freight charges. Today truck transportation is available everywhere . . . and . . . any shipper of Rule 34 freight who feels that his railroad is not making a diligent effort to supply him with cars of the capacity he desires may withdraw his patronage. Quite possibly some shippers will divert part of their traffic from railway to highway if they are no longer permitted to manipulate their minimum weights under the 'carriers' convenience' provisions of Rule 34, but if that is admitted as a valid argument for continuing the rule as it is, then the laws against rebating had better be repealed. . . . The substitutions being made today in the great majority of cases are to promote the shipper's interest and convenience, not the carrier's."

In their conclusion Messrs. Smelker, Jensen and Wall thought it would be well to explain why they suggested the establishment (if necessary) of a "carriers' convenience" rule for heavy bulk freight for which the minimum is based on the weight-carrying capacity of the car, and suggest the withdrawal of existing "carriers' convenience" rules for light and bulky freight for which the minimum weight is fixed with reference to the size of the car. "The reason," they say, "is that the shipper of heavy bulk freight derives no benefit, while the shipper of light and bulky freight derives a substantial benefit, from being furnished a car of greater capacity than ordered. In other words, 'carriers' convenience' rules as to heavy bulk freight, if restricted so as to preclude the ordering of cars of unusual capacities, can hardly be abused; . . . but 'carriers' convenience' rules for light and bulky freight are a serious source of abuse and since we believe they can be withdrawn without any real injury to shippers, we recommend that they be withdrawn."

# Five Roads Join in Building Modern Produce Facilities

(*Continued from page 587*)

at the market, and potato washing, sorting and branding machines, to grade this class of produce and to present it to the trade in its most salable form.

Other important building units at the terminal include the garage stores unit and the growers' sheds. The former of these is a one-story brick building with a concrete floor, 176 ft. long by 40 ft. wide, which affords eight independent truck storage units, assigned to wholesale dealers who distribute produce about the city and environs. The growers' sheds, on the other hand, are essentially display and sales areas for growers who come to the terminal to market their crops.

Altogether, there are four growers' sheds—two double units, with the stalls back to back, one affording 92 stalls and the other 84 stalls, and two single units, one with 46 stalls and the other with 26 stalls. The only essential difference in the sheds, each with stalls 10 ft. wide by 22 ft. deep, is in their cross-sectional area, the single sheds being 22 ft. wide while the double sheds are 44 ft. wide. Both types have steel frames of welded construction, galvanized corrugated metal roofs and concrete paving, and all of them have open sides and ends, except shed No. 2, one of the double units, which has been enclosed with sliding metal-clad doors for winter operations. Special features of the sheds in the interest of those using them include overhead electric lighting and the provision of drinking fountains, hose hydrants, portable platform scales and recessed garbage receptacles at intervals along their edges.

All operations at the terminal are carried out under the direction of a market master. Switching service is afforded three times daily, supervised by a railroad market agent and two assistants working in three shifts. Dealer operations, including sales, are continuous at the option of the individual dealers, but growers' sales begin daily at 6 a. m. upon the sound of a gong by the market master and end early in the forenoon as sales are completed.

Aside from the interesting physical features of the terminal, which, exclusive of land, cost approximately $940,000, is the speed with which the terminal was constructed, being put in operation on August 1, 1939, only 132 days after the extensive work of clearing the site was begun. Further evidence of the speed of construction is seen in the fact that the administration building was completed in less than three weeks' time, while building No. 3, the six-unit stores building, was ready for occupancy 32 days after the breaking of the ground.

The planning and early construction of the terminal was done under a managing committee consisting of Robert Rice, vice-president of the Colorado & Southern, and Wilson McCarthy, trustee of the Denver & Rio Grande Western, while final completion was carried out under the Produce corporation, headed by Mr. Rice as its president. Actual construction operations were in direct charge of C. M. Lightburn, project engineer of the corporation, assisted by Roy Yates, designing engineer, and Dudley Tyler Smith, architect. The general contractor on the building work was Harry W. Hammond, Denver, while all grading and oil and gravel paving was handled by Hamilton & Gleason of Denver. J. B. Bertrand, Inc., also of Denver, constructed the extensive areas of concrete paving. Operation of the terminal is under the immediate direction of Ralph W. Swartz, vice-president and general manager of the Produce corporation.

# New Books...

*Annual Proceedings of The Railway Fuel and Traveling Engineers' Association. Published by the association—T. Duff Smith, secretary, 1255 Old Colony building, Chicago. Price, $2.*

In this volume are the proceedings of the third annual meeting of the consolidated International Railway Fuel and Traveling Engineers' Associations. Following the remarks of L. W. Baldwin, president of the Missouri Pacific, who addressed the coordinated meeting of the Railway Fuel and Traveling Engineers' Association, the Car Department Officers' Association, the Locomotive Maintenance Officers' Association, and the Master Boiler Makers' Association, are the reports and addresses pertaining directly to the work of the Railway Fuel and Traveling Engineers' Association. The subjects reported on were: "AB" Brake Maintenance and Handling; Proper Handling of High-Speed Passenger Trains—Graduated Release; New Locomotive Economy Devices; Avoidable Factors in Design Affecting Fuel and Locomotive Performance; Grates and Ashpans; Stationary Boiler Plants; The Turbine and Condensing Locomotive; Utilization of Locomotives; Locomotive Firing Practice, both Coal and Oil; Fuel Losses and Fuel Wastes; Fuel Records and Statistics.

*Men, Steam and the Driven Wheel, by Edward Yeomans. 173 pages, 5¼ in. by 8 in. Bound in cloth. Published by The Tuttle Publishing Company, Inc., Rutland, Vt. Price $1.50.*

This book is a saga of the locomotive written by a professional author who has contributed to many fields. It differs from other works having a similar purpose largely in its style of writing, which is imaginative, at times poetic and always unusual. This virtue of the book is also its defect. While the author knows what he's writing about—in his efforts to be informal and chatty, he often gets a little incoherent and, at other times, excessively "arty".

On the whole, though, moving writing in the field of the locomotive is in perfect sympathy with its subject material and clear, nicely-drawn descriptions of the advantages of the Walschaert gear, feed-water heaters, and integral frames are made as vivid as a mystery story. An illustrative cross-section of both good and bad points of the book is given in this brief quotation: "A locomotive is still, in its most conspicuous aspect, a kettle over a fire; a kettle arranged to make the most of the fire, with the lid fastened down so that steam, molecules of water crazy with the heat and mad to escape, must, in a sense pay to get out by pushing two pistons".

The most valuable part of the book to railroad men is probably the letters written by veteran enginemen in reply to a questionnaire sent them by the author. Reprinted in full, they are a repository of information about the education, habits and reactions of a good man in the cab.

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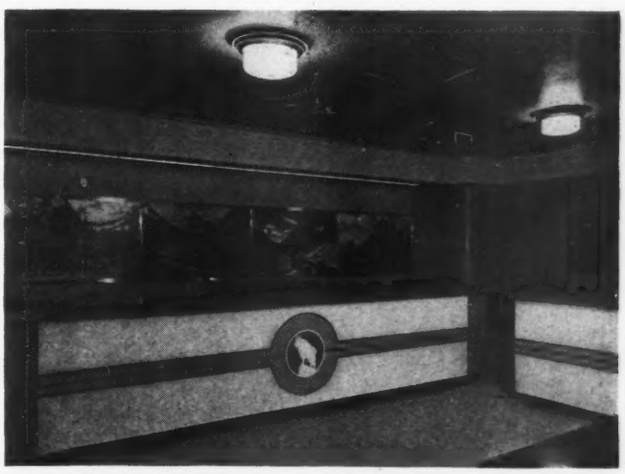

**Interior View of the New Great Northern City Ticket Office Recently Opened in Chicago**

# NEWS

## "Barrier" Hoopla Gets Punctured

### Campaign exposed as effort of truckers to avoid taxes—Ky. truck law defended

Testimony before the Temporary National Economic Committee (Monopoly Committee) on the subject of alleged interstate "trade barriers" and their effect on the free flow of interstate commerce was concluded on March 23, after the committee had heard many phases of the subject discussed by a steady stream of witnesses for the preceding five days. The witnesses who discussed the effect of so-called trade barriers on the motor carrier industry included G. S. Carter, representing Hon. John E. Miles, Governor of New Mexico; chairman, Western States Trade Barrier Conference; and director- School, Severance and Compensating Tax Divisions, New Mexico Bureau of Revenue; M. B. Holifield, representing the Attorney-General of Kentucky; Floyd D. Strong, attorney-director of the Motor Carrier Division, Kansas Corporation Commission and secretary of the Kansas Port-of-Entry Board; John V. Lawrence, general manager, American Trucking Associations, Inc.; Leon F. Banigan, managing director, National Council of Private Motor Truck Owners, Inc.; Park M. Smith, representing the National Association of Motor Bus Operators; Russell E. Singer, general manager, American Automobile Association; and Dr. W. Y. Elliott, School of Government, Harvard University.

Mr. Carter began his discussion before the committee by saying that his argument had much to do with taxation "and when the hide is pulled off the carcass, that is the heart of most trade barrier discussions." He went on to point out that the most potent argument offered by trade barrier elimination enthusiasts is that non-resident truck operators should not be taxed —even on a parity basis with resident taxpayers. "That presents," he asserted, "the most dangerous aspect of this whole study —because, carried through to its conclusion, in order that equity may be established— non-resident railroads, non-resident potash companies, non-resident oil corporations, non-resident telephone companies and all other non-resident operating in a given state would be able to operate on a tax free reciprocal basis. When the Western states are deprived of their authority to tax and regulate non-resident business operators, they will lose so much of their tax income that their status as independent states will vanish."

Mr. Holifield defended Kentucky's 18,000 lb. maximum weight limit for trucks, pointing out that the state's road system was "woefully inadequate" for modern needs and telling the committee that only 20 per cent of the highways have a treated surface, "which, under no circumstances, can support trucks heavier than those now allowed." He also informed the committee that it had been estimated that it would take $130,000,000 to bring the state's highways up to a "safe standard." This would be divided as follows: 1,189 miles should be rebuilt, costing $22,168,000; 4,010 miles would have to be widened, costing $31,217,000; 1,985 miles would have to be relocated, costing $59,720,000; while 1,797 bridges would have to be widened or rebuilt.

After pointing out that Kentucky has maintained a pay-as-you-go policy regarding its highways and has no highway bonds outstanding, Mr. Holifield stated that "To open up our highways to trucks of the weight and size permitted in some other states would so endanger and inconvenience other traffic and so damage our highways as to create a real 'trade barrier'."

The next witness, Mr. Strong, described in detail the operation of the Kansas port-of-entry system, which is nothing more than the setting up of control stations on the state borders where the principal arterial highways enter and leave the state in order that various types of taxes may be levied and collected and inspections made more expeditiously.

"Frankly, we feel that it (the port-of-entry system) has been a success," Mr. Strong told the committee. "While we have had our problems, it has accomplished for Kansas an efficient means of exercising a reasonable control over motor carriers, with an absolute minimum of difficulty and without hampering freedom of commerce as carried on by motor vehicle."

On the other hand, Mr. Lawrence disagreed with Mr. Strong, telling the committee that he believed the port-of-entry system takes too much of the truck drivers' time and that a better system could be devised. He did not say what this system might be. The A. T. A. general manager also took the position that the limitation of weight of trucks does not increase safety on the highways; and he concluded his remarks by pointing out that although Kentucky has a 18,000 lb. limit for trucks, yet it has no weight limit on interstate buses.

The committee counsel next presented a witness, Lee Connor, owner and operator of an interstate trucking business, who told of actual operating conditions on the high-

(*Continued on page 608*)

## Cut Pay of Chi. Board Referees?

### Would trim fees of kangaroo court judges who make up to $12,000 in 6 months

National Railroad Adjustment Board referees will hereafter receive not more than $50 a day instead of $75 that they now get if the House and Senate adopt recommendations to this effect which are contained in a bill reported by the House appropriations committee carrying appropriations for that board and the National Mediation Board for the fiscal year ending June 30, 1941. The committee took this action in reducing the per diem compensation after testimony by board members before it had disclosed the fact that in the fiscal year 1939, one referee, Frank M. Swacker of New York, had received $11,643; while during the first half of the fiscal year 1940, he had been paid $11,737. Also, it was revealed that during the fiscal year 1939 another referee, John A. Lapp of Illinois had received $14,437 for his services in mediating labor disputes.

In response to a request from Chairman Tarver, Democrat of Georgia, the National Mediation Board submitted detailed information as to how many referees were employed during 1939 and the first half of the 1940 fiscal year and the amounts which each were paid. For the fiscal year 1939 five referees received over $1,000, while one man was paid only $75. During the first six months of the 1940 fiscal year six referees were employed and all received over $1,000 for their work.

In reporting to the House, the Appropriations committee made the following comment on the practice of employing and compensating referees:

"It appears that in one case during the fiscal year 1939 a referee was paid nearly $15,000 for 192½ days' work during the year. During the first six months of 1940 (fiscal year) one referee received nearly $12,000 for 156½ days' work. This income was achieved as a result of compensation at the rate of $75 per day during the period of duty. The committee has inserted in the bill language reducing this per diem rate to not to exceed $50 per day, and expresses the hope that the board will not consider this limitation as an invitation to necessarily expend that entire amount as per diem compensation in each case".

During the hearings on the bill Repre-

(*Continued on page 607*)

# Moves to Quit Losing Lines

## S. P. would abandon unprofitable subsidiary electric lines in California

Another step to strengthen its financial position through the abandonment, curtailment or readjustment of unprofitable phases of service was taken by the Southern Pacific on March 25, when it forwarded to the Interstate Commerce Commission a request for permission to abandon 15.2 miles of its Santa Cruz branch line, between Los Gatos, Cal., and Olympia, which has been out of service since the storms of February 26. According to the S. P., restoration would cost between $25,000 and $30,000 and this cash outlay would be in addition to the average annual out-of-pocket cost of maintaining the service. Both operating and maintenance costs of the line south of Los Gatos have been extremely heavy ever since it was acquired in 1887 and changed from narrow to broad gage in 1907. Grades of 2.5 to 2.9 per cent necessitate the use of helper locomotives on trains of more than 5 cars northbound and 7 southbound, while an average of $48,000 per year is spent for maintenance and storm damage.

This step follows that taken on February 26 when the S. P. filed applications with the I. C. C. and the California Railroad Commission seeking permission to abandon passenger service between San Francisco, Cal., and East Bay cities in Alameda County and asked the I. C. C. for permission to remove all of its lines in Alameda County used by the Interurban Electric Railway, except those used by the S. P. for freight service.

While patronage of this trans-bay commuter service has been declining and has been unremunerative for years, the losses have increased considerably since the completion of the Bay Bridge in November, 1936. In the 11½ months from January 15, 1939, when the commuter service was transferred from the ferries to the Bay Bridge, to the end of the year, the net operating loss of the Interurban Railway was $961,168. According to A. T. Mercier, president, "the Interurban Electric losses have exhausted its financial resources and the S. P. is unwilling to continue making advances to Interurban to enable it to continue operations. Every possible solution of the problem, looking to economies of operation or possibility of consolidation of Interurban with the Key System has been considered. All of these efforts have failed and we are, therefore, left with no alternative but to abandon our service at the earliest practicable date."

Recent actions to improve S. P.'s financial position were begun more than a year ago and involve several of its subsidiaries on the coast. The transfer last August of official headquarters of the S. P. from New York to San Francisco and the reorganization of the board with an all-western executive committee was another move toward greater efficiency.

The first of the recent actions was that of the Northwestern Pacific which in February, 1939, asked the California Railroad Commission for permission to abandon its entire electric interurban passenger train service in Marin County on lines extending northward from Sausalito to Mill Valley, San Rafael, Ross, San Anselmo, and Fairfax and Manor and to abandon all service and to discontinue the operation of passenger ferry boats between the foot of Market street, San Francisco and Sausalito. While these suburban operations have been conducted for more than 30 years, they have long been unprofitable, even when the railroad had a monopoly of the business between San Francisco and Marin County. When the Golden Gate Bridge was opened on May 28, 1937, the problems of the Northwestern Pacific became more serious, with the result that its interurban passenger revenues declined from a total of more than $1,000,000 in the years previous to 1929 to approximately half as much in 1938. The loss from interurban operation had grown to such a point that the company "felt it could no longer bear the financial burden of conducting the service, particularly now that its competitor, the bridge, is a satisfactory substitute facility that can easily accommodate an adequate bus service as well as all of the privately owned automobiles that will use it." The California Commission as yet has not acted upon the petition.

Another action was taken on October 18, 1939, when the Pacific Electric Railway Company asked the California commission to approve a plan which involved the discontinuance of unprofitable service on certain rail lines, the modification of passenger service on certain rail lines; the establishment of certain motor coach lines; the rerouting; rearranging and extension of certain other motor coach lines; the discontinuance of certain motor coach rates; and a modernization program which provides for the expenditure of four or five million dollars for new equipment.

Another property from which the S. P. has withdrawn financial support is the Southern Pacific of Mexico which has operated with a deficit for a number of years and which has experienced labor difficulties under the new Mexican administration. The difficulties of this railroad had become so serious by the end of 1939 that in December, Walter Douglas, chairman of the board, informed the officers and employees that the company might cease operations unless expenses could be reduced and efficiency increased so that the company could meet its current charges. The deficit for 1939 was $830,338, compared with $1,416,518 in 1938.

### New Fast Freight on L. & N.

Fast freight service which shortens the time 4¾ hr. has been inauguraed by the Louisville & Nashville between Bowling Green, Ky. and Memphis, Tenn. Synchronized with main line freight service, it makes possible the overnight delivery of merchandise between Louisville and Memphis. Under this arrangement, shipments leave Louisville at 6 p. m., and Bowling Green at 10:30 p. m. and arrive in Memphis at 9 a. m. Northbound fast freight service has been arranged so that connections are made at South Louisville.

# Second Report of Mdse. Committee

## Traffic executives accept 10 more recommendations to improve service

Traffic executives of Eastern, Western and Southern railroads have approved 10 additional recommendations for "improvement in railroad service, traffic practices and tariffs" which were embodied in a further report from the so-called Merchandise Committee of the Association of American Railroads. The Merchandise Committee is that sub-committee of the A.A.R. Traffic Advisory Committee which has been working under the chairmanship of W. J. Kelly, assistant to A.A.R. Vice-President A. F. Cleveland, and under the supervision of a special committee of nine chief traffic officers with instructions "to ascertain from the shipping public views as to the modern needs of the shipping public in the matter of service, practices and rates."

This is the committee's second report, a previous one embodying 12 recommendations having been made public last November, as noted in the *Railway Age* of November 25, 1939, page 831. Among other things the new recommendations indicate that the committee has been doing some thinking about some of the same "abuses" in connection with car ordering which are dealt with in recent report (reviewed elsewhere in this issue) of the three-man committee of the Interstate Commerce Commission's staff.

While it is understood that the deliberations of the Merchandise Committee have been unrelated to the work of the I.C.C. staff committee, the first recommendation of the former deals with Rule 34 of the Classification, some practices in connection with the application of which were called "abuses" by the I.C.C. staff committee. The Merchandise Committee recommendation calls for revision of Rule 34, as to closed cars, to provide for three groups. The first group will include cars up to and including 40 ft. 7 in. in length, and the present minimum for 36 ft. 6 in. will apply to the whole group. This will eliminate any advantage such as now accrues from the device of ordering a 36-ft. car and being furnished with a 40 in accordance with an understanding that such will be done while charges will be based on the minimum for the car "ordered"; and meanwhile the bona fide user of 40-ft. cars will have his present minimum reduced. The second group also with a single minimum throughout would include cars over 40 ft. 7 in. in length but not over 50 ft. 6 in.; while the third group would include cars over 50 ft. 6 in. in length. The recommendation also suggests that no change be made in present provisions of Rule 34 as to open cars.

The second recommendation calls for the the elimination from the Classification of Rule 23 which says that the railroads will not perform split deliveries. In other words, the committee thinks the railroads should go in for split deliveries and recom-

mends changes in Rule 14 to cover the matter. Other sub-divisions of this second recommendation state that there should be a compensatory charge for split deliveries; and that the railroads should also "afford complete transportation of pool carload traffic from break-bulk points to final destination." The set-up contemplated in the latter connection is that the pool cars would be consigned to railroad agents who would then arrange from the fanning out in local deliveries or l.c.l. shipments beyond the break-bulk point.

Other recommendations are as follows:

That the shipping public be kept informed of scheduled merchandise car service and that cars once scheduled be not discontinued without advance notice.

That railroad pick-up and delivery service be more closely supervised; that there be more direct railroad control over pick-up and delivery operations and that duplication of coverage by the same railroads in the same area in the large cities be avoided.

That to the extent practicable the closing time of freight houses be set back to meet the necessities of the competitive situation and train schedules be adjusted to such closing hours; further that freight house servicing of pick-up trucks be thoroughly explored that railroad service in these particulars may be improved.

That the Classification Committees study the penalty provisions in Section 7 of Rule 5 with a view to relaxing these provisions. [They cover penalties for failure to pack in accordance with the classification.]

That the Classification Committees be requested to give consideration to rewriting Rule 12 to provide that where a package contains freight of more than one class charges will be based upon the applicable rate on each article in the mixture at the weight thereof, provided the shipper furnishes specific descriptions and weights; when that is not done the highest rate to apply.

That the question of allowance for weight of dunnage in closed cars be restudied by the Classification Committees.

That a study be made by the A.A.R. to the end that portable refrigerators may be made use of wherever and whenever found practicable, and arrangements for interchange between connections, as well as rules and proper compensation in connection therewith, be considered. [The latter refers to the idea of handling portable refrigerators in box cars and thereby affording perishable protective service for l.c.l. shipments.]

## Porter Suspects "Sit-Down" Against Security Bids

What looked to Interstate Commerce Commissioner Claude R. Porter like "a sort of sit-down strike on the part of capital" was the response of underwriters and other institutions to the recent request of the Chicago Union Station for competitive bids on its proposed $16,000,000 issue of 3⅛ per cent mortgage bonds to provide funds for the retirement of a like amount of 4s. Testimony at a March 23 hearing before Commissioner Porter and Examiner A. C. Devoe revealed that only one of the 107 firms solicited responded with a bid; and that offer (of Halsey Stuart & Co.) was rejected and a contract entered for sale of the bonds on a more favorable basis to a group including Kuhn, Loeb & Co., Lee Higginson Corporation and Harriman, Ripley & Company, Inc., and associates.

The only witness at the aforementioned March 23 hearing, which was held in Washington, D. C., was George H. Pabst, Jr., assistant vice-president of the Pennsylvania and a director of the Station Company. He explained that the competitive bids were invited after the proposed refunding had been discussed informally with certain members of the I. C. C. who expressed the view that the issue might lend itself particularly to competitive bidding. The Halsey Stuart bid of 98.05 per cent of par plus accrued interest, Mr. Pabst said, was not regarded as favorable; and the situation was again discussed with certain members of the I. C. C. who were told that the Station Company would next make an effort to negotiate a sale through the group headed by Kuhn Loeb. The commission members thus contacted indicated that if the Halsey Stuart bid were rejected the application would be set for hearing; and that's what happened when the bid was rejected and the contract entered with Kuhn Loeb and associates.

The latter, Mr. Pabst testified, agreed to pay 99.43 for the issue, making the cost to the Station Company 3.16 per cent. Comparing this with the rejected Halsey Stuart bid, the witness said that it would bring estimated net savings which would aggregate about $2,000,000 over the life of the bonds. The four per cent bonds to be retired will be called at 105, and the refinancing plan contemplates that $600,000 for the payment of the premium will be borrowed from the Northern Trust Company of Chicago.

In response to questions from Commissioner Porter, Mr. Pabst said there had been no protest or other communication received from Halsey Stuart following the letter rejecting that firm's bid. Also, the witness told the commissioner that no bids had been received from the firms who afterward agreed to take the issue at about a point higher than the Halsey Stuart bid. Mr. Pabst had no explanation for that, except what is "generally known" that the "principal members" of the group "have not been in sympathy with competitive bidding" for certain issues.

Examiner Devoe brought out the fact that 101 of those to whom the invitations to bid were sent made no response whatever. Five acknowledgments were received, and two of those stated that the firms involved were opposed to competitive bidding except for state and municipal issues. There came Commissioner Porter's suggestion that it looked like "a sort of sit-down strike on the part of capital."

"I've heard it referred to as that," Mr. Pabst replied.

## Status of San Francisco & Napa Valley

The Interstate Commerce Commission, Division 3, has found that the San Francisco & Napa Valley and its predecessor, San Francisco, Napa & Calistoga, do not fall within the exemption provisos of the Railroad Retirement Act, Carriers Taxing Act and Railway Labor Act. The proceeding, docketed as Electric Railway Docket No. 11, was instituted at the request of the National Mediation Board, the Railroad Retirement Board and the Commissioner of Internal Revenue.

## N. Y. O. & W. Moves Offices

The New York headquarters office of the New York, Ontario & Western has been moved from 370 Lexington avenue to 330 West 42nd street.

## Frisco Gets Truck Route

The Interstate Commerce Commission, Division 4, has conditionally authorized the Frisco Transportation Company, affiliate of the St. Louis-San Francisco, to purchase for $15,000 the operating rights and property of Ozark Truck Lines, Inc., of Springfield, Mo. The decision was in No. MC-F-1036.

## U. P. to Purchase Pony Express Stamps

The Union Pacific will purchase 40,000 of the three-cent stamps which the government has issued in commemoration of the eighteenth anniversary of the start of the Pony Express between St. Joseph, Mo., and Sacramento, Cal., when they are placed on sale on April 3 in these two cities. The U. P. will use them on company mail.

## Estimated Weights on Citrus Fruits

The Interstate Commerce Commission has postponed from March 22 until May 21 the effective date of its order in the case involving the proposed revision of estimated weights on citrus fruits from California, Arizona, Texas and Florida to destinations throughout the country. The commission's report in this proceeding, docketed as I. & S. No. 4511, was noted in the *Railway Age* of February 24, page 384.

## N. E. R. R. Club Elects

E. G. Ringberg, superintendent of shops of the Boston & Maine at Concord, N. H., has been elected president of the New England Railroad Club. D. P. Carey, assistant general mechanical superintendent of the New Haven, has been elected vice-president. Treasurer C. H. Sherburne, 53 Oliver street, Boston, has been re-elected, as has also Secretary W. E. Cade, Jr., 683 Atlantic avenue, Boston.

## Faster Freight Service to Pacific Coast Considered

Faster freight service from Chicago and St. Louis to Pacific Coast points was given consideration at a meeting of member lines of the Western Association of Railway Executives at Chicago on March 22. A minority report, adopted unanimously, calls for sixth morning delivery from Chicago and fifth morning from St. Louis, Mo., to points in California and provides that sixth morning delivery "may" be made to Portland, Ore.; Tacoma, Wash., and Seattle. In accordance with the rules of this association, the matter will be held in abeyance for 15 days so that any road can appeal the decision if it de-

sires. If none objects, railroads so desiring may provide this delivery, which is 24 hours earlier than at present, on or after April 6.

While several trains now arrive early enough for this earlier delivery, others would have to be speeded up considerably. In some instances this may entail the operation of additional trains. This applies particularly to local trains that handle some of the coast business and Chicago trains routed via St. Louis.

## L. K. Sillcox to Address Chicago Car Foremen

At the final meeting for the current season of the Car Foremen's Association of Chicago, to be held at the LaSalle hotel, on Monday evening, May 13, the Association will consider various problems in connection with the braking of high-speed trains in both freight and passenger service. L. K. Sillcox, first vice-president, New York Air Brake Company, will address the group on Braking Trains Under Modern Conditions.

## Railroad Enthusiasts Expand

The Railroad Enthusiasts, Inc., whose president is Donald Eugene Geddes, of Harrington Park, N. J., announces that a new division of that organization was recently formed, with headquarters at Syracuse, N. Y. It will be known as the Central New York Division and will serve the Syracuse, Utica and Rome area. Its secretary is Charles O. Dewey, 116 Berger Avenue, Syracuse, N. Y. This is the eighth division of The Enthusiasts, the others having headquarters at Boston, Worcester, Hartford, New York, Philadelphia, Washington and Buffalo.

## Pension Act Amendment

Chairman Wheeler of the Senate committee on interstate commerce and Chairman Lea of the House committee on interstate and foreign commerce, respectively, have introduced Senate Joint Resolution 234 and House Joint Resolution 496, identical measures to provide for "more uniform coverage under the Railroad Retirement Acts of 1935 and 1937, the Carriers Taxing Act of 1937, and subchapter B of chapter 9 of the Internal Revenue Code." The measures are designed to remove Mexican employees of the Pullman Company from coverage under the Retirement Act, and thus avoid complications which have arisen in connection with the deduction of pension-tax payments from the wages of such employees.

## February Locomotive Shipments

February shipments of railroad locomotives totaled 38 as compared with 27 in January and 18 in February, 1939, according to reports received by the Department of Commerce's Bureau of the Census from builders other than railroad shops. Unfilled orders at the close of February totaled 168 locomotives as compared with 123 at the end of February last year.

The 38 locomotives shipped in February included five steam, 25 Diesel-electric and two of other types for domestic service, and six steam for export; the unfilled orders on hand at the end of February called for 35 steam locomotives, 20 electrics, 74 Diesel-electrics and four of other types for domestic service, and 34 steam for export.

Data supplied by the Car Service Division of the Association of American Railroads on locomotive building in railroad shops show that two locomotives (both steam) were thus produced in February. This is the same as the January production and it further compares with the seven locomotives (two steam and five electrics) built in railroad shops during February, 1939. Railroad shops reported unfilled orders on March 1 for 40 steam locomotives and 20 electrics.

## Seek to Ban Colorado Trucks on Holidays

A petition is being endorsed by voters in Colorado which demands that a proposed initiative law governing the use of highways be submitted to the voters of the state on November 5, 1940. The title of the proposed law is an act empowering the Utilities Commission to regulate the use of highways for commercial transportation and prohibiting such transportation without permit between the hours of 12 o'clock noon Saturdays and 12 o'clock midnight the following Sundays, also during the hours on proclaimed holidays, with certain specified exemptions; defining commercial motor vehicles; and providing penalties for violations.

## I. C. Substitutes Charge for Tipping

The Illinois Central, effective April 1, will make a charge of 10 cents for each piece of baggage handled by Red Caps and thus eliminate the practice of tipping. Under the plan, which is similar to that placed in effect by the Cincinnati Union Terminal Company on February 1, and which will be used at three I. C. Chicago stations, the Red Caps will collect from the passenger and turn the money over to the railroad. The new system follows a ruling by the National Labor Relations Board to the effect that tips are not a part of wages and the Minimum Wage and Hour Act provides for a minimum wage of 30 cents an hour for porters.

## Club Meetings

The Association of American Railway Magazine Editors will hold its spring meeting at the Read hotel, Chattanooga, Tenn., on May 18.

The New England Railroad Club will hold its next meeting on April 9, at the Hotel Touraine, Boston, Mass. C. H. Buford, vice-president in charge of operation and maintenance, Association of American Railroads, Washington, D. C., will address the group. The meeting will begin with a dinner at 6:30 p. m.

The Car Foremen's Association of Chicago will hold its next meeting on April 8, at the La Salle hotel, Chicago. C. H. Longman, assistant general manager of the Chicago and North Western, Chicago, will present a paper entitled "Safety and Efficiency in the Car Department".

The Car Department Association of St. Louis, Mo., will hold its next meeting on April 16, at the Hotel De Soto, with dinner preceding the meeting at 6:15 p. m. A. R. Ayers, general manager of the New York, Chicago & St. Louis, will address the group on the subject of "Transportation in Connection with the Mechanical Department".

## Freight Car Loading

Loading of revenue freight for the week ended March 23 totaled 619,886 cars, the Association of American Railroads announced on March 28. This was an increase of 901 cars, or 0.1 of one per cent, above the preceding week, an increase of 17,938 cars, or three per cent, above the same week in 1939, and an increase of 46,934 cars, or 8.2 per cent, above the corresponding week in 1938.

As reported in last week's issue, loading of revenue freight for the week ended Saturday, March 16, totaled 618,985 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

**Revenue Freight Car Loading**

For Week Ended Saturday, March 16

| Districts | 1940 | 1939 | 1938 |
|---|---|---|---|
| Eastern ..... | 136,192 | 131,935 | 114,496 |
| Allegheny .... | 126,835 | 117,778 | 100,414 |
| Pocahontas .... | 45,202 | 38,961 | 35,231 |
| Southern ..... | 97,264 | 97,018 | 89,523 |
| Northwestern .. | 72,067 | 65,856 | 64,475 |
| Central Western | 95,240 | 94,595 | 89,797 |
| Southwestern .. | 46,185 | 45,023 | 46,429 |
| Total Western Districts .... | 213,492 | 205,474 | 200,701 |
| Total All Roads | 618,985 | 591,166 | 540,365 |
| Commodities | | | |
| Grain and grain products ..... | 31,577 | 29,985 | 30,452 |
| Live stock .... | 10,639 | 11,220 | 11,524 |
| Coal ..... | 125,872 | 112,954 | 87,518 |
| Coke ..... | 9,044 | 7,314 | 4,763 |
| Forest products. | 30,877 | 26,142 | 26,443 |
| Ore ..... | 10,310 | 8,932 | 7,895 |
| Merchandise l.c.l. | 147,527 | 152,321 | 150,821 |
| Miscellaneous... | 253,139 | 242,298 | 220,949 |
| March 16 .... | 618,985 | 591,166 | 540,365 |
| March 9 ..... | 620,997 | 588,426 | 556,730 |
| March 2 ..... | 634,410 | 594,424 | 552,892 |
| February 24 .. | 595,032 | 556,742 | 511,939 |
| February 17 .. | 607,924 | 576,645 | 535,866 |
| Cumulative Total, 11 Weeks ... | 6,916,670 | 6,345,612 | 6,062,240 |

*In Canada.*—Carloadings for the week ended March 16 totaled 46,996, as compared with 47,438 in the previous week; the total, however, being an increase of 6,568 over last year, according to the compilation of the Dominion Bureau of Statistics.

| | Total Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Total for Canada: | | |
| Mar. 16, 1940..... | 46,996 | 24,563 |
| Mar. 9, 1940..... | 47,438 | 25,293 |
| Mar. 2, 1940..... | 48,348 | 25,116 |
| Mar. 18, 1939..... | 40,428 | 21,187 |
| Cumulative Totals for Canada: | | |
| Mar. 16, 1940..... | 519,924 | 265,725 |
| Mar. 18, 1939..... | 441,202 | 232,729 |
| Mar. 19, 1938..... | 496,352 | 242,674 |

## Resolution to Investigate Oil Tanker Rates

Representative Harrington, Democrat of Iowa, has introduced House Resolution 434, proposing an investigation by the House committee on merchant marine and fisheries into the ownership, operation and practices of the oil tanker and oil barge transportation agencies in the United States.

"The reason for the proposed investigation," explained Congressman Harrington, "is that my office and the offices of other members of the committee on merchant marine and fisheries have received numerous complaints as to the juggling of oil tanker and barge rates resulting in an in-

ordinate rise in the price of bunker fuels for our merchant ships and fuel oil for the homes."

## Contracts of Contract Carriers Won't Be Open to Public April 1

The Interstate Commerce Commission has postponed from April 1 "until further order of the commission" the effective date of its November 6, 1939, order in Ex Parte No. MC-9, requiring that contracts of contract motor carriers be placed in the public files of the commission and made available for public inspection. The indefinite postponement came "upon further consideration of the record . . . and of petitions filed by the Contract Carrier Division, American Trucking Associations, Kraft Cheese Company, Illinois Territory Industrial Traffic League, United States Gypsum Company, and Roemer Bros., Trucking Co., Inc."

## Senate Gets Travel-Promotion Bill

The Senate committee on commerce has reported favorably to the Senate the House-approved bill (H. R. 6884) to encourage travel to and within the United States. The bill, which carries an authorization of $100,000 for continuance of the United States Travel Bureau of the National Park Service through June 30, 1941, stipulates: "That the Secretary of the Interior is authorized and directed, through the National Park Service, to encourage, promote and develop travel to and within the United States, its Territories and possessions, providing such activities do not compete with the activities of private agencies; and to administer all existing travel-promotion functions of the Department of the Interior through such Service."

## U. S. Supreme Court Orders

The United States Supreme Court, at its March 25 meeting, remanded to the Illinois State courts the dispute between the Missouri Pacific and two oil companies, the Magnolis Petroleum Company and the Ohio Oil Company, over ownership of oil rights underlying the railroad's right-of-way through the Salem oil field in Marion County, Illinois, instructing the State courts to determine the meaning of certain deeds involved in the transaction.

The Court also again denied an appeal of a group of Baltimore & Ohio bondholders who had contested the validity of the road's interest-adjustment plan which had been approved by a statutory three-judge court sitting as the United States District Court for the District of Maryland.

## Second Wheeler-Committee Volume on Eastern Consolidations

The second volume of the treatise on "Railroad Combination in the Eastern Region" which is being prepared by the staff of Senator Wheeler's rail-finance sub-committee has been submitted to the Senate for printing in accordance with the resolution recently adopted for that purpose. A continuation of the first volume which was noted in the *Railway Age* of February 10, page 301, the new volume of some 700 pages include chapters VI to X, inclusive, dealing in turn with the Transportation Act of 1920; Eastern Railroads in 1920; Background of the Ripley Report; The Commission's Tentative Plan and the Ripley Report; and Combinations and Consolidation Maneuvers during the Commission's Hearings.

## L. A. & T. Affiliate Gets Trucking Certificates

The Interstate Commerce Commission, Division 5, has conditionally authorized Landa Motor Lines, affiliate of the Louisiana, Arkansas & Texas, to operate common-carrier trucking services between Dallas, Tex., and Shreveport, La., and between McKinney, Tex., and Farmersville, serving certain intermediate and off-route points which are stations on the rail line of the L. A. & T. The conditions attached to the grant of authority are the usual five designed to insure that the highway service shall be supplemental of or auxiliary to L. A. & T. rail service.

The same report, citing the Scott Bros. decision, finds that motor vehicle operations in L. A. & T. collection and delivery service within terminal districts are not subject to the Motor Carrier Act.

## Washington Can Set Minimum Petroleum Rates

The superior court of Thurston County, Wash., has denied a motion by railway attorneys for a new trial for a case in which they seek to set aside a ruling of the state department of public service fixing minimum rail rates for the transportation of petroleum. In denying the motion, the court affirmed its decision of February 21 to the effect that the department had authority to fix minimum rail rates in order to "prevent rate wars and destruction of other modes of transportation." The railways had contended they could establish rates on whatever basis they chose, provided the rates were compensatory. They also argued that the department had authority to set maximum but not minimum rates. Highway and water carriers also opposed the railroads.

## Government Rate and Routing Work Being Decentralized

The federal government's freight-rate and shipment-routing work, which has been centralized to a large degree in the Traffic Section of the Treasury Department's Procurement Division, will henceforth be handled by the larger departments themselves while the Traffic Section with its staff reduced from about 67 to 18 will continue to do the rate and routing work of the smaller departments and will be prepared to render an advisory and consulting service for the larger departments. It was explained at the Treasury that this was one of the adjustments that came about as a result of the cutting of relief appropriations available for the payment of workers assigned to the Procurement Division.

Of the 67 persons in the Traffic Section, only 10 were covered under permanent appropriations, the remaining 57 being paid from the relief funds. Under the new set-up, the 18 remaining will include the 10 paid under the permanent appropriations and eight assigned from the relief rolls. In addition to the rate and routing work which it will continue to do for the smaller agencies, the Traffic Section will also retain such of that work as may be related to relief purchases made by the Procurement Division.

Meanwhile the Departments of Agriculture, Interior and Justice and the Veterans Administration are among the agencies which have been advised by the Treasury that Procurement will no longer be able to do their rate work, except to continue to maintain tariff files and function in an advisory and consulting capacity, as noted above.

## New Motion to Dismiss Red Cap Suit

A new motion to dismiss the suit brought against the Terminal Railroad Association by the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees to collect back wages, was filed in the district court at St. Louis, Mo., on March 25 by the association. In the original suit the Brotherhood asked for back wages of $120,000 and damages of a like amount, but the petition was later amended, reducing the claim to $45,000 for wages and to a like amount for damages. The number of red caps on whose behalf the suit was filed was also reduced from 93 to 67.

In its motion the Terminal contends that the 67 employees should be parties to the suit and asserts that the amended petion fails to state a claim on which the court could give relief. The company also questions the jurisdiction of the court.

## Allegheny Shippers Forecast Rise in Coal Loadings

The Allegheny Regional Advisory Board has forecast for the second quarter of the year a 92 per cent increase in bituminous coal loadings in its district, as compared with the corresponding quarter in 1938. This unusual prospective increase accounts for a large part of the increase of 54.7 per cent in total carloadings in the district forecast for the second quarter.

The board's "educated guess" is largely explained by the following factors: (1) during the second quarter of 1939, the mining industry was not operated due to wage negotiations lasting for approximately six weeks; (2) it is believed that industrial interests will stock coal due to an anticipated advance in prices due to the Guffey Act; (3) a greater export trade than normal is likely. The Board also anticipates a 36 per cent increase in cement loadings because of contracts for road building that are already let and anticipated. For iron and steel loadings there is forecast a 22 per cent increase.

## Pacific Railway Club Honors Two R. R. Presidents at Annual Meeting

At its twenty-third annual meeting and banquet at the Palace Hotel, San Francisco, March 21, the Pacific Railway Club presented honorary memberships to A. D. McDonald, president of Southern Pacific, and E. J. Engel, president of the Santa Fe. The citations which accompanied the honorary memberships were presented to Messrs. McDonald and Engel by young

members of the club who now occupy positions in the respective railroad companies that were filled by these presidents at the time they entered railroad service.

George E. Gaylord, superintendent of Southern Pacific and retiring president of the club, was master of ceremonies and the guest of honor and principal speaker was to have been Hon. Ray L. Riley, president of the Railroad Commission of the State of California. Due to Mr. Riley's illness, his place was taken by Senator Carl C. Baker, also a member of the Railroad Commission.

Officers installed to serve during the club's twenty-fourth year are: President, A. M. Reinhardt, assistant freight traffic manager of the Santa Fe; Vice-Presidents —Leonard V. Newton, vice-president, Market Street Railway Company; F. E. Geibel, superintendent of equipment, Pacific Electric; A. A. Murphy, assistant to president, Union Pacific; Treasurer, C. F. Post, general purchasing agent, Western Pacific. William S. Wollner, who has been the club's secretary during the entire 23 years of its existence, will continue in that capacity.

## House Gets Retirement Board Appropriation Bill

The Railroad Retirement Board will receive an allotment of $125,136,000 for the fiscal year ending June 30, 1941, if the House and Senate agree to a bill reported out last week by the House Appropriations committee. This figure, according to the committee report, represents an increase of $1,732,000 over the appropriation for 1940 and is less than the Bureau of the Budget estimate by $57,777.

Commenting on the administration of the Railroad Unemployment Insurance Act, the committee pointed out that during the first six months of operations under the Act, the administrative costs amounted to 37 per cent of the amounts paid out in unemployment compensation benefits. The committee also noted that in the month of January, however, it appeared that with increased payments and a reduction of some administrative charges, this ratio had been decreased to approximately 19 per cent.

"It appears", the committee concluded, "that while there may be some extenuating circumstances that would necessitate higher administrative costs in administering these payments than would be incurred in administering other type benefit payments, nonetheless the present ratio of administrative cost to the amount of benefit payments is entirely too high, and steps should be taken to bring about a reduction in overhead costs".

During hearings on the bill, details of which were reported in last week's issue, Murray W. Latimer, chairman of the Railroad Retirement Board, made a reference to this situation which is criticized by the committee.

## A. T. A.'s Rodgers Blasts Railroads

Ted V. Rodgers, president of American Trucking Associations, Inc., issued a statement on March 25, charging that the railroads through the publication "of erroneous and misleading statistics on highway financing" are endeavoring to bring about increased taxes on motorists "in the hope that passenger traffic might be diverted from passenger cars and buses, and freight from trucks, thus effecting a cure of the so-called railroad ills." The A. T. A. president characterized "charges by railroad spokesmen that highway users are subsidized" a "smoke screen" designed "to hide shortcomings of railroad management."

Mr. Rodgers went on to quote figures which indicated to him that "ton-mile truck taxes are 16 times higher than rails;" and that railroad taxes have increased relatively less than others. Also, he mentioned the railroad land-grants which he figured had given the railroads acreage equaling "just about the combined areas of Germany and Great Britain." Meanwhile, Mr. Rodgers asserted that "the motor vehicle has furnished the railroads vastly more freight than it has taken from them."

Leading up to his concluding charge that "Rails Seek Economic Strangulation of Highways" Mr. Rodgers had urged "all motorists to join with the trucking industry in its fight against the railroad effort to saddle higher taxes on all highway users and thereby cripple the movement of passengers and goods over the highways." "The rails," he went on, "hope ultimately to get automobile and truck taxes so high that highway transportation will become an economic cripple. Then, in a position of monopoly, the railroads will be able to charge all the traffic will bear, which they did before the motor vehicle gave the people a choice of transportation methods."

## Would Compromise on Balance of Post-War Rail Loans

Amendments to the Transportation Act of 1920 which would permit the Secretary of the Treasury to make comprise settlements of amounts due from railroads on loans made under section 210 of that act, are proposed in drafts of identical bills transmitted on March 21 to the Vice-President and the Speaker of the House of Representatives. The proposed bills were sent to Congress by Acting Secretary of the Treasury Bell, and have been referred with his letter of transmittal to the Senate and House committees on interstate commerce.

The latest annual report of the Interstate Commerce Commission showed that loans to carriers under section 210 aggregated $350,600,667, of which $325,421,739.12 had been repaid as of October 1, 1939. The unpaid balance was $25,178,927.88 while the matured interest in default amounted to another $12,960,225.65.

## Would Deny S. P. Motor Application

Because the proposal "is not in accord with the declared policy of the commission of encouraging corporate simplification of motor carrier systems," Examiner Robert E. Hendon of the Bureau of Motor Carriers' Section of Finance has recommended in a proposed report that the I. C. C. deny the application of Pacific Motor Transport Company of Arizona for authority to purchase certain motor-truck operating rights of its parent, the Southern Pacific Company. Since adoption of the foregoing recommended finding would leave the Arizona company without carrier status under the Motor Carrier Act, the examiner says that the S. P. application to control it at this time may be dismissed.

The examiner would have his recommended findings adopted without prejudice to the submission of the matter in an application embracing a revised plan. The case is docketed as MC-F-1065.

## 1939 Capital Expenditures Were $35,092,000 Above 1938

Capital expenditures for equipment and other improvements to railway property made by Class I railroads in 1939 totaled $262,029,000, according to the Association of American Railroads. This was an increase of $35,092,000 above such expenditures in 1938, but a decrease of $247,764,000 compared with those in 1937. It also was a decrease of $610,579,000 compared with 1930.

Of total capital expenditures made in 1939, $133,388,000 were for locomotives, freight and passenger train cars, and other equipment, and $128,641,000 for roadway and structures. Capital expenditures in 1939 for equipment were $17,980,000 above those in 1938, but $189,489,000 below 1937. For roadway and structures, expenditures in 1939 were an increase of $17,112,000 compared with 1938, but a decrease of $58,275,000 compared with 1937.

Expenditures for locomotives in 1939 totaled $42,807,000, compared with $39,570,000 in the preceding year. For freight train cars, expenditures totaled $66,779,000 compared with $52,814,000 in 1938, while for passenger train cars, they were $19,723,000, compared with $18,149,000 in the previous year. For other equipment, the railroads in 1939 expended $4,079,000 compared with $4,875,000 in 1938.

"The increase in capital expenditures in 1939 compared with the preceding year, however, does not fully reflect the stimulation in the purchase of new equipment that took place in the latter part of 1939," the A. A. R. statement points out. "Due to the sharp upward trend in traffic last fall, there was a large increase in equipment orders, but only part of the new freight cars and locomotives could be delivered and placed in service by the end of the year." The number of new freight cars put in service in 1939 totaled 24,528. Class I railroads on January 1, 1940, however, had 37,099 new freight cars on order, the largest number on any corresponding date since 1926. Locomotives on order at the beginning of this year totaled 117, of which 51 were steam and 66 electric and Diesel-electric.

Carry-over into 1940 from the preceding year of all unexpended authorizations for equipment and roadway and structures totaled $234,217,000, the largest amount for any year since 1931.

Among the capital expenditures for roadway and structures made in 1939 was $26,389,000 for heavier rail, compared with $17,247,000 in the preceding year. The railroads also spent $21,196,000 for bridges, trestles and culverts in 1939, compared with $18,231,000 in the preceding year. They also spent $10,459,000 for yards and sidings, about three million dollars more than

was spent for that purpose the year before. Expenditures made in the past year for additional ballast, shops and engine houses, station and office buildings and signals, were in each instance greater than in 1938.

Capital expenditures made annually by Class I railroads in the past ten years follow:

| | |
|---|---|
| 1939 | $262,029,000 |
| 1938 | 226,937,000 |
| 1937 | 509,793,000 |
| 1936 | 298,991,000 |
| 1935 | 188,302,000 |
| 1934 | 212,712,000 |
| 1933 | 103,947,000 |
| 1932 | 167,194,000 |
| 1931 | 361,912,000 |
| 1930 | 872,608,000 |

## December Bus Revenues 12 Per Cent Above 1938

Class I motor carriers of passengers reported December, 1939, revenues of $10,751,545, as compared with $9,603,014 in December, 1938, an increase of 12 per cent, according to the latest compilation prepared by the Interstate Commerce Commission's Bureau of Statistics from 148 monthly reports representing 149 bus operators. Passengers carried meanwhile increased 16.6 per cent, from 11,959,555 to 13,943,052.

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special party service, is given in the accompanying table.

| | Passenger Revenue | | Passengers Carried | |
|---|---|---|---|---|
| | December, 1939 | December, 1938 | December, 1939 | December, 1938 |
| New England Region | $511,572 | $408,394 | 1,119,627 | 1,071,778 |
| Middle Atlantic Region | 1,619,189 | 1,382,488 | 3,286,920 | 2,862,630 |
| Central Region | 1,881,869 | 1,626,488 | 2,608,015 | 1,919,210 |
| Southern Region | 2,575,000 | 2,326,734 | 3,034,748 | 2,504,106 |
| Northwestern Region | 418,199 | 366,452 | 342,849 | 327,743 |
| Mid-Western Region | 856,619 | 781,980 | 609,451 | 568,515 |
| Southwestern Region | 1,398,398 | 1,314,873 | 1,446,693 | 1,337,902 |
| Rocky Mountain Region | 109,830 | 122,565 | 87,953 | 90,930 |
| Pacific Region | 1,380,869 | 1,273,040 | 1,406,796 | 1,276,741 |

## Greyhound Inaugurates New Washington Terminal

The Greyhound Corporation opened to the public on March 25 its new, completely air-conditioned $1,000,000 bus terminal at Eleventh and Twelfth Streets and New York Avenue, N. W., in Washington, D. C. The new terminal is constructed of Indiana limestone, cement and steel and is fireproof. The building was designed by W. S. Arrasmith, transportation architect of Louisville, Ky. The new structure has loading docks under cover for 13 busses at one time, and eight ticket windows are provided for patrons.

The companies using the new terminal are the Capitol Greyhound Lines, the Atlantic Greyhound Lines, Pennsylvania Greyhound Lines, Richmond Greyhound Lines, Blue Ridge Lines, and the Peninsula Bus Company. The Pennsylvania Greyhound Lines is a Pennsylvania affiliate, while the Richmond, Fredericksburg & Potomac holds an interest in the Richmond Greyhound Lines.

## A. A. R. Issues Loose-Leaf Manual on Interpretations of Accounts

In order to facilitate the work of accounting officers who find it necessary to refer to the classifications of accounts prescribed by the Interstate Commerce Commission, and interpretations thereof, the Finance, Accounting, Taxation and Valuation Department of the Association of American Railroads has issued a loose-leaf book, entitled "Interpretations of Interstate Commerce Commission Accounting Classifications for Steam Railroads." Prepared at the request of the A. A. R. Accounting Division's General Committee, the booklet contains all the formal interpretations included in I. C. C. Accounting Bulletin No. 15, also the informal interpretations issued by the I. C. C. Bureau of Accounts and designated as "A" cases—all brought up to date to include cases added, revised or canceled, to March 1, 1940.

A. A. R. Vice-President E. H. Bunnell announced the publication of the book in a circular dated March 22. Mr. Bunnell pointed out that future orders of the commission, prescribing interpretations of accounts to be included in Accounting Bulletin No. 15 and informal interpretations covered by new or revised "A" cases issued by the Bureau of Accounts, will be distributed direct by the Secretary of the commission and the Bureau of Accounts, respectively, the same as heretofore. "As soon as a sufficient number of additional cases or revisions of cases previously issued have accumulated to warrant such action," Mr. Bunnell goes on, "loose-leaf supplements covering all such new or revised interpretations will be issued by this Department . . . and distributed to carriers and others for inclusion in the book and in this manner it will be kept up to date." The price of the book to members of the A. A. R. and employees of members is $1 per copy; to others, $1.25 per copy. These prices "include provisions for a limited number of supplements to be furnished, as and when issued . . . " Among other features of the book is the convenient index by subjects and by accounts.

## February Truck Loadings 17.5 Per Cent Ahead of 1939

The volume of revenue freight transported by motor truck in February decreased 5.7 per cent under the volume transported in January, but increased 17.5 per cent above the tonnage carried in February, 1939, according to the American Trucking Association's monthly survey based on comparable reports from 208 motor carriers in 39 states and the District of Columbia.

These carriers transported 853,700 tons of freight in February. This compared with 905,382 tons in January, and 726,629 tons in February of last year. The average monthly tonnage of the reporting carriers in 1936 was 726,252. The A. T. A. index figure, computed on the basis of the 1936 monthly average tonnage of the reporting carriers as representing 100, stood at 117.55 for February, in January, the index figure was 123.54, and in February, 1939, it was 101.90.

The decline in February as compared with January was chiefly the result of fewer business days—there were 26 in January and only 24 in February. Poor weather conditions particularly in the East, was a contributing factor to the decline, some carriers indicated.

Eighty-three per cent of all the freight transported in the month was reported by carriers of general merchandise. Although the volume of general merchandise transported decreased 4.7 per cent under January, it represented a 17 per cent increase over February, 1939. Transporters of petroleum products, accounting for slightly more than 6 per cent of the total tonnage reported, showed a decrease of 3.8 per cent in February, as compared with January, and an increase of 26.7 per cent as against February of last year. Movement of new automobiles and trucks in February decreased 10 per cent under January, but represented an increase of 28.9 per cent above February, 1939. The labor situation in the automobile manufacturing industry remained "quiet", and the 10 per cent decrease in tonnage under January was attributed to the continued tapering off of production. Iron and steel products, representing about 3 per cent of the total reported tonnage, showed a sharp drop of 24.2 per cent under January, but still held 3.2 per cent above the February, 1939, volume.

Four per cent of the total tonnage reported was miscellaneous commodities, including tobacco, textile products, bottles, building materials, cement and household goods. Carriers in this group reported a decrease in tonnage of 8.3 per cent below January. They showed an increase of 13 per cent, however, as compared with February, 1939.

## Truck-Competitive Rates on Meats and Packing House Products

Railroads will be permitted to reduce rates to meet truck competition for freshmeats and packing-house-products traffic, and certain articles in mixed carloads therewith, from Chicago to a portion of Central territory, according to a recent decision of the Interstate Commerce Commission embodied in a report by Commissioner Alldredge. The decision in I. & S. Docket No. 4650 finds that the suspended rates are unduly prejudicial, in violation of the aggregate-of-intermediates provision of section 4, and that the suspended tariffs are not in conformity with section 6 of the Interstate Commerce Act; but all of this is without prejudice to the publication of reduced-rate tariffs without such disabilities.

In discussing the ramifications of the proposed rates Commissioner Alldredge foresees that an ultimate result may be "a serious disarrangement of an important and highly competitive rate adjustment, built up as a result of our decisions after extensive investigation and careful consideration of the rights and interests of the various parties."

"Notwithstanding the undesirable results

(*News continued on page 606*)

# Canadian Pacific Railway Company

## FIFTY-NINTH ANNUAL REPORT

OF THE

DIRECTORS OF CANADIAN PACIFIC RAILWAY COMPANY

YEAR ENDED DECEMBER 31, 1939

*To the Shareholders*:

The accounts of the Company for the year ended December 31, 1939, show the following results:

**Income Account**

| | | |
|---|---|---|
| Gross Earnings | | $151,280,699.78 |
| Working Expenses (including taxes) | | 122,756,880.31 |
| Net Earnings | | $28,523,819.47 |
| Other Income (after providing for depreciation of steamships and hotels) | | 6,764,851.22 |
| | | $35,288,670.69 |
| Fixed Charges | $24,700,692.40 | |
| Interest on bonds of Minneapolis, St. Paul & Sault Ste. Marie Railway Company, guaranteed as to interest by your Company | 805,830.00 | |
| | | 25,506,522.40 |
| Balance transferred to Profit and Loss Account | | $9,782,148.29 |

**Profit and Loss Account**

| | | |
|---|---|---|
| Profit and Loss Balance December 31, 1938 | | $136,969,650.26 |
| Balance of Income Account for the year ended December 31, 1939 | | 9,782,148.29 |
| | | $146,751,798.55 |
| DEDUCT: | | |
| Loss on lines abandoned and on property retired and not replaced | $4,838,055.47 | |
| Miscellaneous—Net Debit | 560,240.22 | |
| | | 5,398,295.69 |
| Profit and Loss Balance December 31, 1939, as per Balance Sheet | | $141,353,502.86 |

The balance of Income Account available for transfer to Profit and Loss Account was $8,519,766 greater in 1939 than in 1938.

**Railway Earnings and Expenses**

The comparative results of railway operations were as follows:

| | 1939 | 1938 | Increase or *Decrease* |
|---|---|---|---|
| Gross Earnings | $151,280,699 | $142,258,981 | $9,021,718 |
| Working Expenses (including taxes) | 122,756,880 | 121,506,515 | 1,250,365 |
| Net Earnings | $28,523,819 | $20,752,466 | $7,771,353 |
| Expense ratios: | | | |
| Including taxes | 81.15% | 85.41% | *4.26* |
| Excluding taxes | 78.26% | 82.29% | *4.03* |

The increase in gross earnings of $9,021,718 is equal to 6.3%. Decreases were experienced in the first four months of the year, reflecting the lower level of business and industrial activity throughout Canada. Commencing in May, improvement became evident and increases were recorded each month with the exception of October in which the decline in earnings from grain more than offset the increases from other classes of traffic.

Passenger earnings decreased $504,341, or 3.1%, despite the stimulating effect of the Royal Tour in May and June and an increase in mid-summer tourist traffic from the United States. In the early part of the year, unfavorable business conditions resulted in a lower volume of travel in Eastern Canada. The inauguration last spring of transcontinental air services introduced a new competitive element in long-distance travel in Canada. Although there was a substantial increase in all-expense tour traffic from overseas, it was offset by a heavy decrease in regular traffic to and from Europe and the Orient as a result of unsettled international conditions. However, an increase in passenger earnings in December offset to some extent the earlier decline.

Freight earnings increased $10,010,559, or 9.1%, reaching the highest level since 1930. In the early part of the year, the general industrial recession was responsible for decreases in most classes of commodities. Improvement commenced in the second quarter and became more pronounced in the remaining months, owing to the grain movement and the impetus imparted by the war to certain classes of business. The movements of coal, lumber and logs, paper, refinery and smelter products, and miscellaneous manufactured goods all showed increases during the year, while fruits and vegetables and petroleum products decreased.

Earnings from grain and grain products for the year increased by $6,214,457, or 24.2%, almost three-fifths of the increase having occurred in the period prior to the movement of the new crop. Handlings of all grains totalled 203 million bushels, an increase of 38 million. This compares with the 1930-1938 average of 150 million bushels and the 1925-1929 average of 254 million. The 1939 wheat crop in the Prairie Provinces amounted to 463 million bushels, the second largest in history. Owing to the comparatively small volume of wheat exports during the summer and early autumn months, terminal elevators at the head of the Great Lakes and in Eastern Canada became filled to capacity, and it was necessary for the railways to establish temporary embargoes during October and the first half of November against movement of grain from various Western points to the Lakehead. It is estimated that, largely on account of this condition, less than 60 per cent. of the crop was moved by the end of the year, compared with 70 per cent. in the previous year, and your Company enjoyed the benefit of only about one-third of the increase in its grain carryings to be expected from the 1939 crop.

The increase in working expenses of $1,250,365 is equal to 1.0%, which was more than accounted for by the fact that in the first three months of 1938 deductions from basic rates of pay were still in effect, and, towards the end of that year, there was a temporary lay-off of shop and clerical staffs which did not recur in 1939.

Maintenance expenses increased $242,993, or 0.5%, and represented 31.93% of gross earnings, as compared with 33.78% for 1938. Maintenance of Way and Structures expenses decreased $430,214. During the year 181.2 single track miles were relaid with new rail, and 1,489,082 treated and 1,857,436 untreated ties were placed in track. Three special ballasting projects including the placing of 105.6 single track miles of rock ballast were completed on the Company's Western Lines. Maintenance of Way expenses were relieved to the extent of $116,437 by reason of the assumption by the Dominion Government of a portion of the expense of the ballasting projects as part of the program for relief of unemployment. Maintenance of Equipment expenses increased $673,207. While there was an increase of $1,395,250 in charges for retirements of rolling stock, the total of which was $7,411,151, there was a substantial reduction in the cost of other maintenance of equipment expenses, owing principally to the fact that only one passenger car was air-conditioned as compared with ninety cars in 1938. At the end of the year, 85.6% of locomotives and 96.5% of freight cars were in serviceable condition, as compared with 85.8% and 94.9%, respectively, at the end of 1938.

Transportation expenses increased $926,661. The ratio to gross earnings was 36.18%, as compared with 37.82% in 1938. With the exception of the year 1936, when wage reductions were in effect, this was the best transportation ratio since 1929. The improvement resulted in part from the greater concentration of traffic in the period of the year when conditions of operation were most favorable, making possible heavier train loading and more economical use of motive power. The operating efficiency of your Company continued to improve, as indicated by the following comparisons with 1938; the average freight train load was 1,717 tons as against 1,604 tons, an increase of 113 tons; the average consumption of fuel was 99 pounds per 1,000 gross ton miles, as compared with 102 pounds, reaching the lowest level yet recorded; the average speed of freight trains increased

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from 17.1 to 17.2 miles per hour and the gross ton miles per freight train hour from 27,363 to 29,573.

Other working expenses increased $80,711. Traffic expenses decreased as a result of the curtailment of advertising and the closing of certain foreign agencies following the outbreak of war. General expenses increased, largely by reason of greater pension disbursements and the fact that the one week lay-off of clerical staff in 1938 was not repeated in 1939. Senior officers, Directors, and members of the Executive Committee were subject to the same reductions in remuneration as in the previous year.

### Other Income

Other income amounted to $6,764,851, a decrease of $598,821.

Dividend income was reduced by $665,141. Dividend disbursements of The Consolidated Mining and Smelting Company of Canada, Limited, were at the rate of $2.00 per share as compared with $2.50 in 1938. The amount received by your Company from that source was $3,365,000, or $841,250 less than in the previous year.

Net income from interest, exchange, separately operated properties, and miscellaneous sources amounted to $2,621,100, an increase of $1,128,570, due principally to the more favorable rates of exchange.

The operation of ocean and coastal steamships resulted in a net loss of $71,274, after deducting $3,782,277 for depreciation. This compares with net earnings of $591,071 in 1938. Prior to the actual outbreak of war, unsettled international conditions brought about a decrease in gross earnings from ocean steamships in Atlantic and cruise services. The commencement of hostilities resulted in further disturbance to both freight and passenger business in all services. All ocean cruises were cancelled and many of your Company's ships were engaged in war services. The "Beaverhill" met with two accidents which kept her out of service for a total of five months, and in December the "Duchess of Atholl" sustained severe damage to her turbines which necessitated the cancellation of a round voyage. All told, gross earnings of ocean steamship services suffered a decline of $2,307,389. Insurance charges increased $846,318, largely for war risks. Net earnings of coastal steamships decreased by $62,805, due mainly to increased insurance charges. In the circumstances, the result of the year's operations was as satisfactory as could be expected.

Net earnings from hotel, communication and miscellaneous properties amounted to $12,960, a decrease of $399,905. There was a decrease of $352,386 in hotel earnings, after providing $1,448,008 for depreciation. The provision for depreciation, which was $201,321 more than in 1938, was computed at 2½% of the depreciable investment, the full rate set as the objective for hotel depreciation charges. Notwithstanding the competition resulting from the inauguration of Trans-Canada airmail services, there was an increase of $12,484 in the earnings from communications. There was a decrease of $60,003 in the earnings from miscellaneous properties.

### Fixed Charges and Guaranteed Interest

Fixed charges decreased $67,246. Income account was charged with $805,830, being the amount payable by your Company by reason of its guarantee of interest on Soo Line Second Mortgage Bonds, maturing January 1, 1949, and First Refunding Mortgage Bonds, Series "B," maturing July 1, 1978.

### Dividends

While operations for the year resulted in a substantial improvement in earnings, your Directors, after very careful consideration, reluctantly came to the conclusion that in view of the uncertainties of the present situation they would not be warranted in declaring any dividend on the Preference Stock in respect of the year 1939. Your Directors feel that, in the interests of all of your Company's security and stock holders, such course was the proper one to take, particularly in view of the impossibility, owing to war conditions, of predicting the effect on your Company of developments in the near future.

### Profit and Loss Account

Your Company's hotel at Vancouver was closed on May 24, 1939. While the ultimate disposition of the property has not yet been determined, it has been considered desirable to write down your Company's investment therein for the reason that the agreement with the Canadian National Railways for the operation of the new Hotel Vancouver provides that the old building must not be used as a hotel. Accordingly, Property Investment has been reduced by an amount of $3,743,127, of which $1,176,629, representing the depreciation accrued on the hotel, has been charged to Hotel Depreciation Reserve and the remainder, less salvage recovered, has been charged to Profit and Loss under the caption, Loss on Lines Abandoned and on Property Retired and Not Replaced.

Charges were also made under this caption for the retirement of various other properties found to be no longer necessary under present conditions, including 16.2 miles of line, 26.1 miles of sidings and passing tracks, 5 enginehouses, 15 water stations, and 42 other structures. These abandonments will be productive of operating economies.

### Land Accounts

During the year, 106,148 acres of agricultural lands were sold for $762,315, an average price of $7.19 per acre. This included 1,203 acres of irrigated land sold at an average of $47.60 per acre and the remainder at an average of $6.71 per acre.

In continuation of its policy of aiding in the rehabilitation of farmers in Western Canada who have suffered from the adverse conditions of the last nine years, your Company extended the same concessions to holders of farm contracts as in 1938. Interest rebated during the year amounted to $419,395, and reductions on account of principal outstanding and further concessions in interest for cash payments totalled $1,523,744. Since the inauguration of this policy in 1932, the Company has made total rebates and concessions amounting to $14,966,988.

Collections of interest on deferred payments were lower than in 1938, which resulted chiefly from the adverse effect of low grain prices on farm income in the Province of Alberta where more than three-quarters of the Company's outstanding contracts are placed. Notwithstanding lower receipts from lands, these exceeded total cash expenditures charged against land accounts.

Since the setback caused by the depression, the activities of the Department of Immigration and Colonization, which involved an expenditure of $264,411 for the year, have been showing steadily increasing results, particularly in connection with the bringing over from Europe of experienced agricultural families with sufficient capital to enable them to acquire and operate farms. The number of these brought over and settled on farms in Canada under the auspices of the Department from the first of the year until the outbreak of the war was 51% greater than in the corresponding period for 1938.

### Balance Sheet

The General Balance Sheet is presented in the customary form and this Report includes the usual schedule indicating the changes in Property Investment which occurred during the year.

An important change is in the amount at which your investments in United States railroad subsidiaries is carried. The revised plan of reorganization of the Spokane International Railway Company approved by the Interstate Commerce Commission makes no allotment of securities in the new Company to the unsecured creditors or stockholders. Your stock investment in and your unsecured claims against that Company have, therefore, been written off. Furthermore, in view of the principles adopted in reorganizations under the Bankruptcy Act of the United States, it has now become apparent that there is no reasonable prospect of realizing any value from your stock investments in the Soo Line and South Shore Companies, and accordingly these have also been written off. These write-offs, aggregating $15,650,021, were charged against investment reserves previously provided.

In 1907, your Company became interested as half owner in a coal mining property in Ohio, owned and operated by Cambridge Collieries Company. Over the period, it has proved a valuable asset, yielding substantial dividends, stabilizing the price paid by your Company for coal, and ensuring continuity of supply. In more recent years, the depressed conditions in the coal industry, together with the gradual exhaustion of the readily available coal reserves, have resulted in uneconomic operation. In 1939, it was decided to dismantle the properties and to dispose of the salvage. As it is apparent that there will be no residue for the shareholders, after the payment of prior claims, your Company's investment in the preferred and common stock has been written off. There has been charged to Investment Reserves the amount

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already provided therein against your Company's proportion of the accumulated deficit. The balance of the write-off, amounting to $362,303, is included in miscellaneous debits to Profit and Loss.

Commencing with the year 1934, all discount on terminable securities has been charged to Unadjusted Debits and is being amortized through Income Account over the life of the securities. Discount on other terminable securities, issued prior to that year, which had been charged against Premium on Capital and Debenture Stock, has on maturity or retirement of such securities been transferred to Profit and Loss or Land Surplus, as appropriate. Analysis showed that the net balance of discount on terminable bonds remaining to be transferred to Profit and Loss was slightly less than the amount of net discount on Perpetual 4% Consolidated Debenture Stock which has been charged to Profit and Loss since the inception of your Company and which could properly have been charged against Premium on Capital and Debenture Stock. Therefore, to simplify the Balance Sheet and avoid the necessity of making further transfers upon the maturity or retirement of the terminable bonds, an adjustment between the discounts on the Consolidated Debenture Stock and on these bonds has been effected, resulting in the crediting of a net amount of $62,998 to Profit and Loss. The remaining discount on note certificates, amounting to $2,031,078, has been transferred to Land Surplus, the account charged with the interest on this issue.

### Finance

Serial 3% Collateral Trust Bonds to the amount of $1,000,000 and 3 year 2½% Collateral Trust Bonds to the amount of $8,000,000 were redeemed and on such redemption Consolidated Debenture Stock to the amount of $10,850,000, pledged as collateral, was released and cancelled.

Equipment obligations to the amount of $3,254,769 matured and were paid and Consolidated Debenture Stock to the amount of $268,000, pledged under Series "D," was released and cancelled. An amount of $2,587,669 was deposited with the Trustee of the Equipment Trust maturing July 1, 1944.

Serial 4% Secured Notes to the amount of $638,285 were redeemed on February 1, and on such redemption Consolidated Debenture Stock to the amount of $962,400 was released and cancelled. Later in the year, owing to the decline in the market value of Consolidated Debenture Stock, further amounts of that Stock, aggregating $6,586,100, were deposited, under the terms of the Notes, as additional security for the balance of the Notes. In December, owing to the improvement in the market value, Stock to the amount of $1,589,300 was withdrawn and cancelled.

Twenty Year 4½% Sinking Fund Secured Note Certificates to the amount of $328,500 were purchased by the Trustee and cancelled.

Repayment was made to the Dominion Government of $210,940 in reduction of the liability for loans made on account of unemployment relief.

Payment of the final instalment of the amount payable for the railways purchased jointly by the Canadian National Railway Company and your Company from the Government of Alberta was made on June 1, your Company's proportion being $2,790,000. As this obligation had been assumed by the Northern Alberta Railways Company, 5% Bonds of that Company in the amount of $2,790,000 were issued and delivered to your Company in consideration of the payment referred to.

During the year, loans totalling $15,000,000 were obtained from Canadian banks on short term promissory notes. On December 28, these loans were reduced by a cash payment of $3,000,000, and the balance of $12,000,000 was converted into serial notes payable in instalments of $2,000,000 each on December 1, in each of the years 1940 to 1945. The notes maturing in the years 1940 to 1943 bear interest at 3% per annum, and the notes maturing in the years 1944 and 1945 bear interest at the rate of 3½% per annum. The notes provide that they shall be collaterally secured by the deposit of shares of the Capital Stock of The Consolidated Mining and Smelting Company of Canada, Limited, having a market value at least equal to the principal amount of the indebtedness outstanding, and Consolidated Debenture Stock of your Company having a market value at least equal to 35% of the principal amount of the indebtedness. Your Company has the right, on giving 30 days' notice, to pay off in whole or in part the notes maturing within two years from the date of such notice. At the end of the year, there were on deposit as security for these notes 280,000 shares of the Capital Stock of The Consolidated Mining and Smelting Company of Canada, Limited, and $8,000,000 principal amount of Consolidated Debenture Stock.

As a result of these financial transactions, there was a net reduction of $3,988,938 in bonds, notes and other obligations and of $2,790,000 in the contingent liability in respect of the Northern Alberta Railways Company.

### Pensions

Pension disbursements for the year amounted to $2,722,051 and were included in working expenses.

Since the inception of the contributory pension plan on January 1, 1937, the employee contributions, less refunds, have amounted to $5,938,670.

Under the provisions of the United States Carriers Taxing Act, the taxes levied on your Company and on its employees, who come under the provisions of the United States Railroad Retirement Act, amounted in each case to $65,181, being at the rate of 2¾% of the compensation earned by such employees.

During the year, 602 employees were pensioned, but owing to deaths and other causes, there was a net increase of only 358 on the pension payroll. The distribution by ages of the pensioners as at December 31, 1939, was as follows:

| | |
|---|---|
| Under 60 years of age | 204 |
| From 60 to 64 years of age inclusive | 351 |
| From 65 to 70 years of age inclusive | 1,840 |
| Over 70 years of age | 1,404 |
| | 3,799 |

### Minneapolis, St. Paul & Sault Ste. Marie Railway Company

The comparative railway operating results of this Company were as follows:

| | 1939 | 1938 | Increase |
|---|---|---|---|
| Gross Earnings | $14,873,396 | $13,220,668 | $1,652,728 |
| Working Expenses (including taxes) | 14,030,423 | 13,375,564 | 654,859 |
| Net Earnings | $842,973 | $154,896* | $997,869 |

* Deficit.

The chief factors in the improvement were the increases in earnings from grain and iron ore. The grain crop harvested in the territory served by the Soo Line was the largest since 1930, and it is estimated that 34,000,000 bushels have been or will be shipped to market over that line. Ore shipments in 1939 were approximately double those in 1938. Working expenses increased $654,859, of which two-thirds pertained to Maintenance of Way and Structures. Net earnings, while substantially improved, represented only a small part of the requirement for fixed charges.

During the year, your Company has been conducting negotiations with representatives of the holders of Soo Line bonds with a view to formulating a plan of reorganization. These discussions have not as yet led to the discovery of a basis for composing the conflicting interests. The time within which a plan of reorganization must be filed has been extended by the Court to April 1, 1940.

Of the First Consolidated Mortgage Bonds of the Soo Line which matured on July 1, 1938, and have not been paid, $56,863,000 of the 4% series and $8,136,000 of the 5% series were guaranteed as to interest by your Company Your Company paid from time to time all interest in respect of which the Soo Line was in default up to and including the instalment due on the maturity date.

A group of insurance companies and other institutional holders brought an action in the Circuit Court of Cook County, Illinois, claiming that the obligation of your Company under its guarantee of interest remains in effect until the principal amount is paid. This action has not yet come on for trial.

Similar actions have been commenced in several other States. In the only one of these which has been tried, judgment was in favor of your Company.

Your Company is advised that its guarantee of interest terminated with the instalment due July 1, 1938, and that it has a good defense to these actions.

### Spokane International Railway Company

The plan of reorganization, as modified and approved by the Interstate Commerce Commission, which, as stated previously,

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makes no provision in the way of new securities for the unsecured debt or stock interest of your Company, has been certified by the Commission to the District Court and awaits approval. Since the close of the year, the Trustee, under the direction of the Court, has given notice of the disaffirmation of a number of executory contracts, including the traffic agreement with your Company. It would not appear that this action should affect your Company's earnings.

### The Duluth, South Shore & Atlantic Railway Company

The comparative railway operating results of this Company were as follows:

| | 1939 | 1938 | Increase |
|---|---|---|---|
| Gross Earnings | $2,272,514 | $1,782,879 | $489,635 |
| Working Expenses (including taxes) | 2,189,427 | 1,909,744 | 279,683 |
| Net Earnings | $83,087 | $126,865* | $209,952 |

* Deficit.

The increase in gross earnings was due principally to the trebling of ore tonnage handled. One-half of the increase in working expenses was for maintenance.

After considerable delay, negotiations with representatives of holders of First Mortgage Bonds were resumed shortly before the end of the year, but as yet no agreement has been reached upon which a plan of reorganization could be based.

### The Royal Tour

The visit to Canada during the year of His Majesty, King George VI, and His Gracious Consort, Queen Elizabeth, was an event of outstanding historical significance and proved to be without question the greatest single contribution to the unity of the Dominion since Confederation. Your Company was privileged to play an important rôle in the transportation arrangements of the Royal Tour. Their Majesties were carried across the Atlantic to Canada in the "Empress of Australia" and back in the "Empress of Britain." While in this country, the Royal Train, which was provided jointly by the Canadian National Railways and your Company, travelled 3,388 miles over your lines. Their Majesties broke their journey for two days at the Banff Springs Hotel, your Company's world-famous resort in the Canadian Rockies, and the journey from Vancouver to Victoria was made in the "Princess Marguerite" of your British Columbia Coast Service. The efficiency of your Company's organization was strikingly demonstrated in the successful accomplishment of this extensive journey.

### Outbreak of War

The outbreak of war found your Company fully prepared to meet the increased demands upon its facilities and services. A few days earlier, your Chairman and President had conveyed to the Prime Minister of Canada an assurance that the resources of your Company were entirely at the disposal of the Dominion. It has since been the constant endeavor of your Directors and officers to cooperate with the Government authorities in every way possible, in order that in the various fields within which your Company's activities are carried on nothing should be left undone that would assist in making most effective the contribution of Canada towards the fulfilment of the great task that has been undertaken by the Empire and its loyal Allies.

### The Ministry of Shipping

The Chairman and President of your Company has been appointed as the representative in Canada of the British Ministry of Shipping. His functions are to supervise in Canada all ships registered in the United Kingdom, neutral ships chartered by the Ministry and prizes of war engaged in its services, and to deal with such other matters as may be delegated to him by the Minister. Your Directors have consented to his services being given to the Ministry of Shipping without cost to the latter.

### Transport Controller and Canadian Shipping Board

Owing to the necessity for the closest co-operation between all transportation interests to prevent port congestion as a result

## Canadian Pacific Railway Company

### General Balance Sheet, December 31, 1939

#### Assets

| | | |
|---|---|---|
| **Property Investment:** | | |
| Railway, Rolling Stock, Inland Steamships, Hotel, Communication and Miscellaneous Properties | $792,330,598.36 | |
| Improvements on Leased Railway Property | 95,800,809.78 | |
| Ocean and Coastal Steamships | 104,840,546.17 | |
| Stocks, Bonds and Other Securities of Leased, Controlled and Jointly Controlled Railway Companies and Wholly Owned Companies | 199,317,035.74 | |
| | | $1,192,288,990.05 |
| **Other Investments:** | | |
| Miscellaneous Investments—Cost | $25,850,609.97 | |
| Advances to Controlled and Other Companies | 26,098,524.95 | |
| Mortgages Collectible and Loans & Advances to Settlers | 3,670,311.49 | |
| Insurance Fund Investments | 8,262,431.33 | |
| Deferred Payments on Lands and Townsites | 33,764,803.96 | |
| Unsold Lands and Other Properties | 26,526,045.00 | |
| | | 124,172,726.70 |
| **Current Assets:** | | |
| Material and Supplies | $19,389,496.53 | |
| Agents' and Conductors' Balances | 6,695,339.46 | |
| Miscellaneous Accounts Receivable | 5,120,664.07 | |
| Cash | 31,809,398.21 | |
| | | 63,014,898.27 |
| **Unadjusted Debits:** | | |
| Insurance Prepaid | $108,833.07 | |
| Unamortized Discount on Bonds | 2,789,289.82 | |
| Other Unadjusted Debits | 2,478,115.76 | |
| | | 5,376,238.65 |
| | | $1,384,852,853.67 |

#### Liabilities

| | | |
|---|---|---|
| **Capital Stock:** | | |
| Ordinary Stock | $335,000,000.00 | |
| Preference Stock—4% Non-cumulative | 137,256,921.12 | |
| | | $472,256,921.12 |
| **Perpetual 4% Consolidated Debenture Stock** | $501,318,628.74 | |
| Less: Pledged as collateral to bonds, notes and equipment obligations | 205,880,400.00 | |
| | | 295,438,228.74 |
| **Bonds, Notes and Equipment Obligations** | $218,649,176.54 | |
| Less: Securities and cash deposited with Trustee of 5% Equipment Trust | 9,496,050.45 | |
| | | 209,153,126.09 |
| **Twenty Year 4½% Sinking Fund Secured Note Certificates (1944)** | $30,000,000.00 | |
| Less: Purchased by Trustee and cancelled | 10,742,400.00 | |
| | | 19,257,600.00 |
| **Current Liabilities:** | | |
| Audited Vouchers | $5,496,275.86 | |
| Pay Rolls | 2,889,275.87 | |
| Net Traffic Balances | 226,986.21 | |
| Miscellaneous Accounts Payable | 2,949,928.24 | |
| Accrued Fixed Charges and Guaranteed Interest | 2,710,139.25 | |
| | | 14,272,605.43 |
| **Deferred Liabilities:** | | |
| Dominion Government Unemployment Relief | $3,639,102.71 | |
| Miscellaneous | 1,592,194.87 | |
| | | 5,231,297.58 |
| **Reserves and Unadjusted Credits:** | | |
| Rolling Stock Reserve | $8,232,241.09 | |
| Hotel Depreciation Reserve | 5,715,045.42 | |
| Steamship Depreciation Reserve | 51,731,389.56 | |
| Investment Reserves | 10,463,527.24 | |
| Insurance Reserve | 8,262,431.33 | |
| Contingent Reserves | 5,165,039.17 | |
| Unadjusted Credits | 2,313,423.55 | |
| | | 91,883,097.36 |
| **Premium on Capital and Debenture Stock** | | 68,551,646.45 |
| **Land Surplus** | | 67,454,828.04 |
| **Profit and Loss Balance** | | 141,353,502.86 |
| | | $1,384,852,853.67 |

AUDITORS' CERTIFICATE:

We have examined the Books and Records of the Canadian Pacific Railway Company for the year ending December 31, 1939, and having compared the above Balance Sheet and related schedules therewith, we certify that in our opinion it is properly drawn up so as to show the true financial position of the Company at that date, and that the Income and Profit & Loss Accounts correctly set forth the result of the year's operations.

PRICE, WATERHOUSE & CO.,
Chartered Accountants.

Montreal, March 8, 1940.

E. A. LESLIE, *Comptroller.*

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of war conditions, the Dominion Government, by Orders-in-Council under the War Measures Act, has provided for the appointment by the Minister of Transport of a Transport Controller, and for the establishment of the Canadian Shipping Board.

The duty of the Transport Controller is to determine questions of priority in regard to the movement within Canada of troops, naval forces, materials and supplies, and to co-operate with the Canadian representative of the British Ministry of Shipping.

The functions of the Canadian Shipping Board are to control the transportation by sea from Canada in ships of Canadian registry of materials and supplies other than those consigned to the British and other Governments, and to co-operate with the Transport Controller.

Subject to the limitations referred to, the railway companies continue to exercise their full powers as carriers.

### Canadian Pacific Personnel and the War

Officers and employees of your Company who volunteered for service during the Great War made a splendid contribution to the defence of the Empire. It is gratifying to note that in the present conflict the same spirit prevails among your Company's personnel.

The vital importance to the Allied cause of adequate and efficient transportation service is fully recognized, and this must be an essential duty of your Company. However, provision has been made for the granting of leave of absence to officers and employees who can be spared and who enlist with His Majesty's forces at home or abroad, to those who as members of the non-permanent defence forces are called for active service, and to those who respond to the call of our Allies.

Subject to prescribed conditions as to reporting back for duty after demobilization or discharge, the seniority, rank and continuity of service of such officers and employees will be preserved, and your Company will, at its own expense and on terms fixed by your Directors, allow as pensionable service the period during which any such officer or employee, who shall become eligible for pension allowance, shall be absent and engaged on active service.

In the United Kingdom and in Continental Europe, on account of the enforcement of compulsory military service, transportation and other corporations have accepted as a civic duty the obligation of making certain allowances to their officers and employees called to the colors, in addition to service pay and allowances. Your Directors have deemed it desirable, so far as officers and employees in the United Kingdom and France are concerned, to adopt a similar policy for such period as they shall determine in the light of conditions prevailing from time to time.

### Municipal Assessment on Angus Shops

In 1902, an agreement was made between the City of Montreal and your Company under which the municipal assessment of the property known as Angus Shops was fixed for a term of twenty years. In 1922, a new agreement was entered into which fixed the assessment at $1,000,000. This agreement was renewed from time to time and finally expired on April 30, 1937. As a result of negotiations carried on since that date, a new agreement was finally entered into dated April 17, 1939, under which, in consideration of the transfer to the City of certain lands in the easterly section of the City originally acquired for a projected extension to Longue Pointe, the City has agreed to fix the assessment on the Angus Shops property at $1,000,000 for a further term of fifteen years from May 1, 1937.

### Stock Transfer and Registration, Toronto

In April last, offices for the transfer and registration of your Company's Ordinary Capital Stock were established in the City of Toronto. The use that has so far been made of these additional facilities, which are of particular advantage to your Company's shareholders resident in the Province of Ontario, indicates that the action of your Company in this regard is appreciated by those concerned, including the executive and members of the Toronto Stock Exchange.

### Pick-Up and Delivery Freight Service

In 1934, with a view to meeting more effectively the competition of highway transport, your Company inaugurated within a limited territory a pick-up and delivery service for less-than-carload freight. This service has since been gradually extended until it is now in effect on all parts of the System with very satisfactory results.

### Capital Expenditures

In anticipation of your confirmation, your Directors authorized for the year 1939 capital appropriations amounting to $792,592 in addition to those approved at the last annual meeting. Your approval will be requested for capital appropriations of $14,216,074 during the present year. The principal items are:

| | |
|---|---|
| Replacement and enlargement of structures in permanent form | $168,018 |
| Additions and betterments to stations, freight sheds, coaling and watering facilities and engine houses | 185,323 |
| Ties, tie plates, rail anchors and miscellaneous roadway betterments | 1,589,459 |
| Replacement of rail in main and branch line tracks with heavier section | 564,773 |
| Rock ballasting | 513,798 |
| Additions and betterments to shop machinery | 213,729 |
| Additional terminal and side track accommodation | 76,946 |
| New rolling stock | 10,053,690 |
| Additions and betterments to rolling stock | 514,190 |
| Additions and betterments to hotels | 23,244 |
| Additions and betterments to communication facilities | 255,947 |

The appropriations for new rolling stock provide for the purchase of 29 locomotives, 1,300 freight cars, and 10 mail and express cars, which, in addition to providing necessary replacements, will enable your Company to handle with greater economy the increased business resulting from wartime activity. The amount of these appropriations represents gross expenditure; the charge to Property Investment will be reduced by credits resulting from retirement of rolling stock. The appropriations for additions and betterments to rolling stock include the usual betterments to freight cars and motive power to increase operating efficiency and the capital proportion of the cost of air-conditioning 17 tourist and 2 parlour cars.

### Agreement

An agreement dated October 1, 1937 (sanctioned by Order-in-Council, dated June 15, 1939), between Napierville Junction Railway Company and your Company, amending and renewing an agreement dated February 26, 1917, will be submitted for your approval. The original agreement permitted the use of your Company's tracks between Delson Junction and Windsor Station, Montreal, by the Napierville Junction Railway Company and is renewed for a further period of twenty years from October 1, 1937. The amendments, which are of a minor character, comprise a revision of the apportionment of cost of maintaining and operating the crossover and interlocking plant at Delson Junction, an increase in the amount charged for the handling of locomotives, and a lengthening of the period allowed for free storage of passenger cars at Glen Yard.

### Revision of By-Law

Your approval will be asked for a revision of By-law No. 95, which authorized the person named therein to prepare and issue tariffs of telegraph and telephone tolls, so as to confer such authority on the person from time to time holding the position of General Manager of Communications. The purpose of this revision is to obviate further amendments upon a change in the person holding such position and to ratify and confirm tariffs previously issued by the present incumbent.

### Canadian National-Canadian Pacific Act

In 1939, the Dominion Parliament amended the Canadian National-Canadian Pacific Act, 1933, to provide for compensation to employees dismissed or demoted as a result of co-operative projects instituted under that Act. This legislation is similar to the arrangement known as the Washington Agreement, entered into by nearly all United States railroads in 1936.

### Co-operation with the Canadian National Railways

Further studies of co-operative projects under the provisions of the Canadian National-Canadian Pacific Act have continued to demonstrate the many obstacles to the attainment of worthwhile economies under separate management. The only additional projects made effective during the year were (1) the

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abandonment of the Canadian Pacific line between Linwood and Listowel, Ontario, 16.5 miles, and (2) the opening on May 25, 1939, under joint management, of the new Hotel Vancouver. The Vice-Presidents' Joint Committee established in 1938 for the purpose of widening and expediting co-operative measures between the railways has continued its work during the year but no agreements were concluded in that period.

The total estimated annual savings from co-operative measures, exclusive of the Hotel Vancouver, which were in effect at the end of the year, amount to approximately $1,148,000, one-half of which accrues to each Company, and the total estimated annual savings from projects approved but not yet in effect amount to approximately $814,000, one-half of which would accrue to each Company. Included in the latter are proposed abandonments of 501.1 miles of line, for which applications are now before the Board of Transport Commissioners and which involve estimated annual net savings to the two railways of $483,000. The lines of your Company included in this program extend between MacGregor and Varcoe, Manitoba, 54.4 miles; Hamiota and Miniota, Manitoba, 19.8 miles; Reston, Manitoba, and Wolseley, Saskatchewan, 122.4 miles; and Langdon and Beiseker, Alberta, 22.6 miles—a total of 219.2 miles.

#### Special Committee of the Senate, 1939

The Special Committee of the Senate of Canada appointed in 1938 to "Enquire into and Report upon the Best Means of Relieving the Country from its Extremely Serious Railway Condition and Financial Burden Consequent Thereto" was reappointed by resolution of March 7, 1939, with the same terms of reference.

This Committee heard additional evidence from labor representatives, various other interested parties and officers of the Canadian National and Canadian Pacific railways. Your officers dealt with the progress of co-operative measures under the Canadian National-Canadian Pacific Act of 1933. They also gave further details substantiating your Company's estimate of the savings that would accrue through unified management of the two railways and submitted an estimate of savings, amounting to $59,361,000, on the basis of the traffic level of 1937.

Although a majority of the Committee joined in a report favoring further attempts at co-operation under the Canadian National-Canadian Pacific Act of 1933, the Senate, after debate and on division, agreed to an amendment of the report approving of the principle of unified management, which has been consistently advocated by your Company.

#### Stock Holdings

The holdings of the Capital Stock of your Company in December, 1939, were as follows:

| | ORDINARY | | PREFERENCE | | TOTAL |
|---|---|---|---|---|---|
| | No. of Holders | Per-centage of Stock | No. of Holders | Per-centage of Stock | Per-centage of Stock |
| Canada | 26,420 | 18.87 | 155 | .73 | 13.50 |
| United Kingdom and other British | 19,453 | 51.76 | 25,393 | 95.05 | 64.58 |
| United States | 15,621 | 22.86 | 57 | .37 | 16.20 |
| Other Countries | 3,674 | 6.51 | 565 | 3.85 | 5.72 |
| | 65,168 | | 26,170 | | |

#### Changes in Directorate

The Directors deeply regret to report the loss by death during the year of two members of the Board, Mr. James A. Richardson of Winnipeg, in June, and Sir Charles Gordon, G.B.E., of Montreal, in July. Mr. Richardson had been a Director of your Company since 1927, and Sir Charles had been a Director and a member of the Executive Committee since 1929.

Mr. G. Blair Gordon of Montreal was appointed to the Board to fill the vacancy caused by the death in October, 1938, of the Right Honorable Lord Shaughnessy, K.C., and the Honorable Eric W. Hamber of Victoria was appointed a Director to succeed Mr. Richardson.

Mr. A. B. Purvis was appointed to fill the vacancy on the Executive Committee.

#### Retiring Directors

The undermentioned Directors will retire from office at the approaching Annual Meeting. They are eligible for re-election:

MR. D. C. COLEMAN
MR. JOHN W. HOBBS
MR. R. S. MCLAUGHLIN
SIR EDWARD PEACOCK, G.C.V.O.
MR. W. N. TILLEY, K.C.

Your Directors again desire to express their appreciation of the loyalty and efficiency of the officers and employees of your Company.

For the Directors,

E. W. BEATTY,
*President.*

MONTREAL, MARCH 11, 1940.

[Advertisement]

# News

(*Continued from page 600*)

to be expected from the maintenance of a system of rates typified by the proposal under consideration," the majority report goes on, "the responsibility, according to the evidence of record, is not chargeable to the rail carriers respondents in this proceeding. It lies primarily at the door of contract carriers by motor vehicle who have taken advantage of their right to establish and maintain charges for transportation that have little or no regard for the principle of equality of treatment demanded by law of common carriers. The contract-carrier rates which respondents have undertaken by the proposal under consideration to meet are not before us for review or revision in the limited manner permitted by the act, and we cannot deny to respondents their right to meet competition as they find it so long as they comply with the requirements of law."

Dissents of Commissioners Porter, Caskie and Rogers are noted.

## Jones Discusses Great Northern Financing

Federal Loan Administrator Jesse Jones announced at his press conference on March 21 that the Reconstruction Finance Corporation had offered to finance $20,000,000 of the $28,132,000 of St. Paul, Minneapolis & Manitoba Pacific extension four per cent mortgage bonds, which are due to mature July 1. The company forms a part of the Great Northern, and the latter road would pay the remaining $8,132,000 in cash.

Mr. Jones made public a letter to F. J. Gavin, president of the Great Northern, which outlined the details of the commitment. According to this letter, the financing would be effected through a new $20,000,000 four per cent collateral trust bond, maturing January 1, 1952, which the R. F. C. would take at par. The new collateral trust bonds are to be secured by a pledge of the $20,000,000 of the maturing bonds.

The Federal Loan Administrator stated that the road had made efforts to obtain funds in the public market, but that the offer from the R. F. C. was the best that it had yet received. The offer, according to Mr. Jones, must be submitted to the board of directors of the Great Northern and is subject to the approval of the Interstate Commerce Commission. The Great Northern, according to Mr. Jones, was in a position to pay the $8,132,000 in cash and had expressed a preference to do this.

At the same time Mr. Jones announced that the R. F. C. had sold $3,000,000 of Erie 2½ per cent equipment trust certificates of 1939 to Lazard Freres & Co., Inc., at a price of 103½. This price, Mr. Jones said, represented a premium of $105,000 and an interest basis of slightly less than 1.75 per cent. He went on to say that this was the lowest yield at which a railroad equipment obligation ever had been sold, with the possible exception of an issue of the Bessemer & Lake Erie, which is controlled by the United States Steel Corporation.

Mr. Jones also said that no new loans for equipment trusts were pending, and that the railroads now could obtain sufficient funds in the public market.

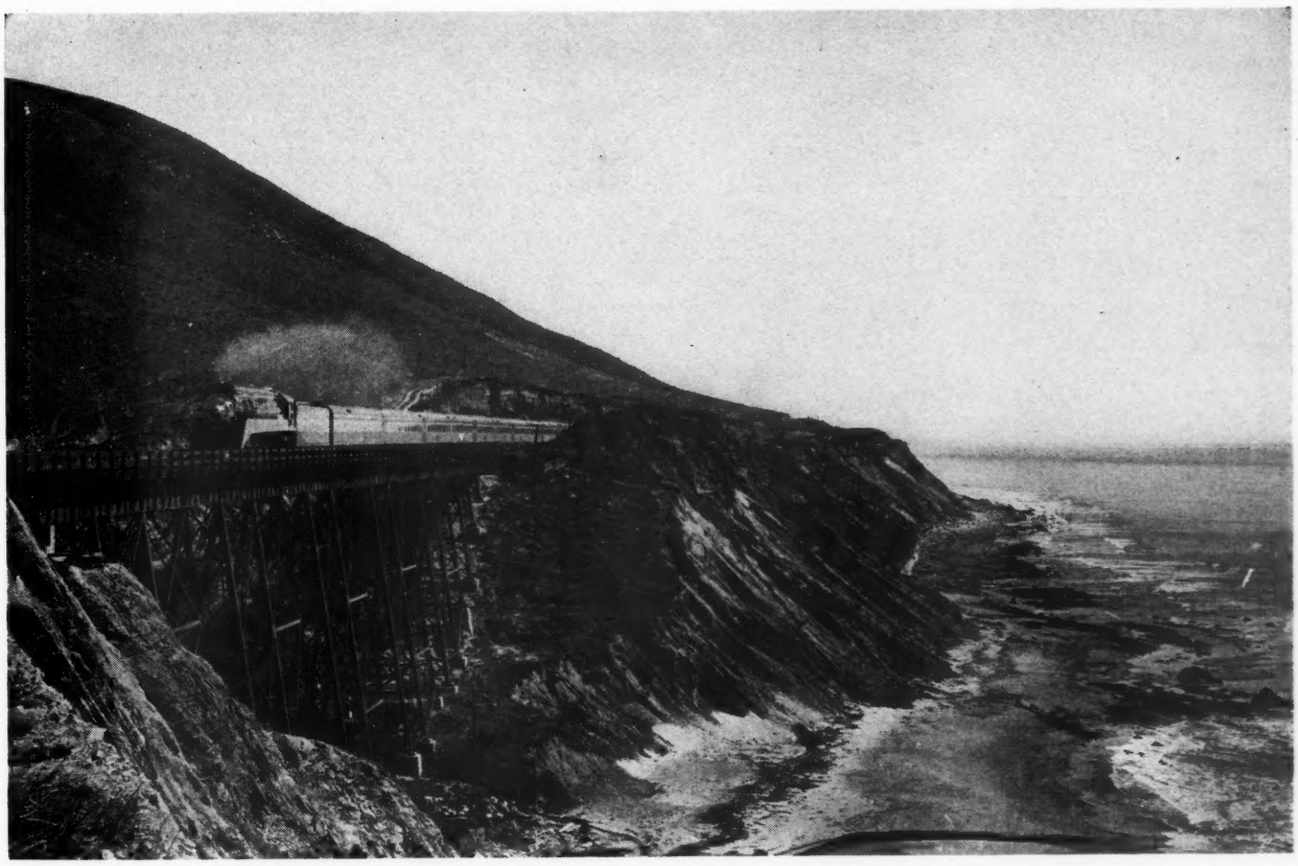
## Phila. "Perfect Shipping" Meeting Draws 1800

The Perfect Shipping Month campaign in Atlantic States Shippers Advisory Board territory was inaugurated at the Hotel Benjamin Franklin, Philadelphia, on the evening of March 21, where R. W. Krantz, regional traffic manager, Sears, Roebuck & Company, and chairman of the Philadelphia subcommittee, conducted what is believed to have been the largest meetings ever held in the United States in connection with freight loss and damage prevention work.

Approximately 1800 representatives of shippers, receivers and transportation

*Continued on next left-hand page*

# CREATE
## NEW TRAFFIC



## . . . *with modern, steam streamliners*

**The ready acceptance of the public of the new light-weight, high-speed streamlined trains has resulted in a gratifying financial success to the progressive railroads that have inaugurated these "Crack Trains".**

**The public want to travel on streamliners—don't miss your share of this traffic. Modernize your road with Lima Streamlined Steam Locomotives and enjoy this added source of revenue.**

**LIMA LOCOMOTIVE WORKS** LIMA LOCOMOTIVE WORKS INCORPORATED **INCORPORATED, LIMA, OHIO**

agencies turned out to attend this opening meeting of the 1940 campaign of the Atlantic States Board. All available standing room was filled early in the evening and several hundred had to be turned away. Registered attendance was approximately 1500, about 50 per cent being shippers and receivers and the balance carrier representatives.

A novel feature of the program was a quiz contest which followed the showing by the Pennsylvania Railroad of the A. A. R. vocafilm, "On Guard." The film graphically and dramatically portrayed the aims of the campaign, and prizes of five Silvertone Radios, through the courtesy of Sears, Roebuck & Co., were awarded to the quiz contestants who were able to give the best answers to questions designed to develop to what extent the information presented in the film had been retained by the audience.

Addresses were presented by W. J. Edwards, manager of the Trunk Line Freight Inspection Bureau, and A. P. Kivlin, assistant chief engineer, Freight Container Bureau, A. A. R., both of New York, whose subjects were, respectively, "Claim Prevention from a Freight Inspection Bureau Standpoint" and "Container Design and Packing."

At the conclusion of the meeting, an education motion picture, "Canadian Rockies Holiday," was presented by the Canadian Pacific.

An informative background for the meeting was provided by Philadelphia industries in the form of some fifty exhibits showing methods of proper protection of freight for shipment. These exhibits occupied the entire floor space of the balcony surrounding the hotel lobby.

Additional campaign meetings in the Atlantic States Board territory have already been held at Scranton, Wilkes-Barre, Baltimore and Wilmington and further meetings are scheduled as follows:

| | | | |
|---|---|---|---|
| Newark, N. J. | April | 1 | |
| Reading, Pa. | " | 2 | |
| Harrisburg, Pa. | " | 3 | |
| Washington, D. C. | " | 10 | |
| York, Pa. | " | 11 | |
| Lancaster, Pa. | " | 11 | |
| Syracuse, N. Y. | " | 15 | |
| Trenton, N. J. | " | 16 | |
| Utica, N. Y. | " | 16 | |
| Binghamton, N. Y. | " | 16 | (tentative) |
| Elmira, N. Y. | " | 17 | (tentative) |
| Rochester, N. Y. | " | 17 | |
| New York City | " | 18 | |

## Expect Second-Quarter Loadings to Be 18 Per Cent Above Last Year

Freight car loadings in the second quarter of 1940 are expected to be about 18.1 per cent above actual loadings in the same quarter in 1939, according to estimates compiled by the 13 Shippers' Advisory Boards. On the basis of those estimates, loadings of the 29 principal commodities will be 5,429,774 cars in the second quarter of 1940, compared with 4,598,508 actual loadings for the same commodities in the corresponding period in the preceding year.

Of the 13 Shippers' Advisory Boards, all estimate an increase in carloadings for the second quarter of 1940, compared with the same period in the preceding year, except the Southwest Board which estimates a smaller decrease.

The tabulation below shows actual loadings for each district in the second quarter of 1939, the estimated loadings for the second quarter of 1940, and the percentage of increase or decrease:

| Shippers' Advisory Boards | Actual loadings second quarter 1939 | Estimated loadings second quarter 1940 | Per cent increase |
|---|---|---|---|
| New England... | 101,296 | 106,167 | 4.8 |
| Atlantic States.. | 597,791 | 600,946 | 0.5 |
| Allegheny ..... | 488,200 | 766,460 | 57.0 |
| Ohio Valley ... | 430,815 | 753,706 | 74.9 |
| Southeast ..... | 554,983 | 592,210 | 6.7 |
| Great Lakes ... | 342,052 | 376,678 | 10.1 |
| Central Western. | 157,479 | 162,279 | 3.0 |
| Mid-West ..... | 623,567 | 660,116 | 5.9 |
| Northwest ..... | 298,240 | 377,064 | 26.4 |
| Trans-Missouri-Kansas ..... | 270,332 | 279,536 | 3.4 |
| Southwest ..... | 314,513 | 300,667 | 4.4* |
| Pacific Coast ... | 231,739 | 266,232 | 14.9 |
| Pacific Northwest | 187,501 | 187,713 | 0.1 |
| Total ..... | 4,598,508 | 5,429,774 | 18.1 |

* Decrease.

The 13 Boards, according to the estimates, expect an increase in the second quarter of 1940, compared with the same period one year ago in the loading of 25 commodities, while decreases are expected in the loading of four commodities. Among those showing the greatest increase are the following: Coal and coke, 48.8 per cent. due in part to the strike of bituminous miners in certain states one year ago; automobiles, trucks and parts, 31.5 per cent; cotton, 29.2 per cent; ore and concentrates, 26.7 per cent; machinery and boilers, 16.5 per cent; agricultural implements and vehicles other than automobiles, 15.6 per cent; chemicals and explosives, 14.9 per cent; iron and steel, 13.6 per cent; fertilizers of all kinds, 9.9 per cent; hay, straw and alfalfa, 9 per cent; paper, paperboard and prepared roofing, 9.1 per cent; cement, 7 per cent and lumber and forest products, 6.5 per cent.

The four commodities for which reductions are estimated are: Grain, 1.4 per cent; citrus fruits, 8.8 per cent; potatoes, one-half of one per cent and other fresh vegetables, 8 per cent.

## Cut Pay of Chicago Board Referees?

(*Continued from page 594*)

sentative Engel, Republican of Michigan, asked, "Who was this man who drew the $14,000 plus?"

"He was Dr. John A. Lapp, a man who has—I think he was originally selected by one of the divisions itself and he was asked for", replied Otto S. Beyer, chairman of the National Mediation Board which appoints the referees when asked to do so by the members of the divisions of the adjustment board when they "deadlock" on the selection of a referee in cases where the adjustment board members are unable to reach a decision.

"Who is he?" continued Mr. Engel, referring to Dr. Lapp.

"Dr. John A. Lapp is a man who I think was for a while identified with one of the colleges in the west", answered Mr. Beyer. "He has had a great deal of experience as a so-called neutral and in a number of labor and similar disputes".

"You say he is a doctor. Doctor of what?", queried the Michigan solon.

"Doctor of philosophy", replied Mr. Beyer, "I presume a Ph. D. But he has had experience and has been used, as a matter of fact on different arbitrations between labor organizations and has been selected by them. I merely mention that as an example of the type of men selected."

At another point in the hearing Chairman Tarver asked, "Would or would not $50 per day be sufficient compensation?"

"Well, I think that is a matter of opinion", replied Leland Howard, administrative officer of the adjustment board.

"I think it is fair to say, Mr. Chairman", interposed M. W. Hassett, adjustment board member, "that when they select a referee for any division he is certified to the Mediation Board and the Mediation Board has the authority to say what the fee or salary shall be. That is not within the province of the adjustment board."

"Are these men who are appointed referees and who draw $75 per day appointed from the railroads, or from organizations representing labor, or from where?", asked Mr. Engel.

"I think possibly Mr. Beyer could answer that question better because that is a function that usually falls to the Mediation Board and in a large number of cases they appointed these referees", replied Mr. Howard.

"Let us get that straight right now", said Chairman Beyer of the Mediation Board. "It is the duty of the present members on each division to make an effort to select them, and when they deadlock on the selection of them they call upon us to appoint them. That is the situation. In some cases they select them themselves and in most cases they ask us to appoint them. Now, we are asked to appoint these individuals on the qualifications laid down for the appointment of referees in the law, which is that they neither be interested in nor identified with labor, on the one hand, nor with the railroads on the other.

"As a result of that we have got to look around outside the industry for such individuals. Now, there are people, who broadly speaking, have some knowledge of the old process of adjudicating different types of disputes. I mean by that, they come into it with some background. Some of them are lawyers; some of them are judges, and sometimes they are deans or presidents of law schools, or colleges. These are the types of persons appointed. As near as we can tell we take people we know about, that is, who have a general reputation in such matters for impartiality within the meaning of the law."

The appropriation measure carries an item of $367,900 for the National Mediation Board, which includes $188,900 for the National Railroad Adjustment Board for the fiscal year ending June 30, 1941.

## Injunction Forbids Concessions at Kansas City, Kan., Mart

A temporary injunction forbidding the granting and accepting of concessions to Kansas City, Mo., produce dealers to induce them to move to the new food terminal in Kansas City, Kan., was granted by Federal Judge John Caskie Collet at Kansas City, Mo., on March 25 in a suit brought by the United States District At-

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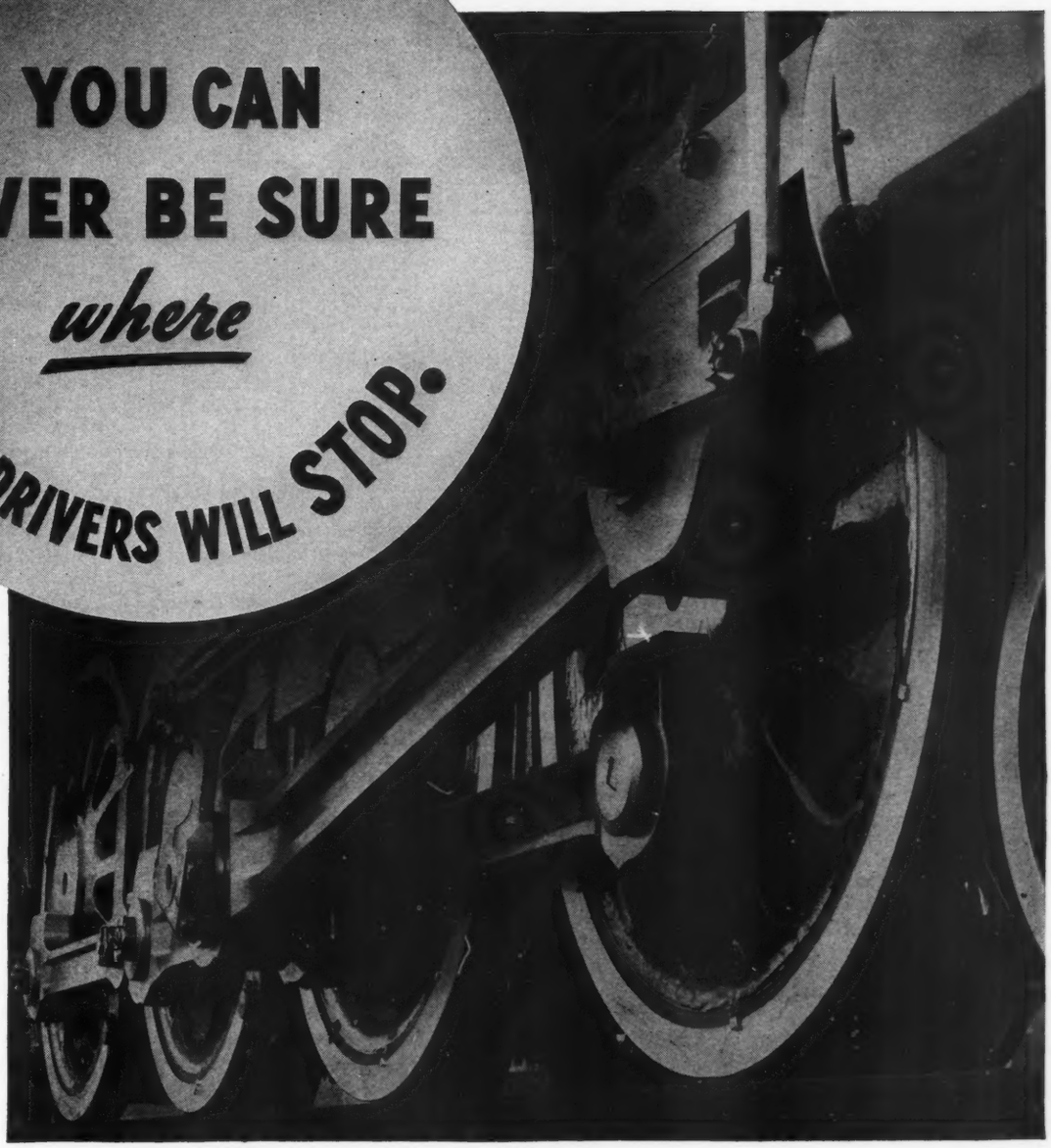
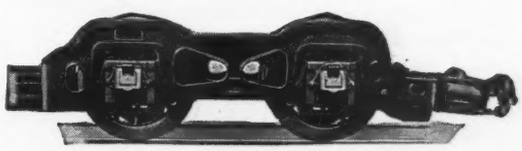
# YOU CAN NEVER BE SURE *where* THE DRIVERS WILL STOP.



If the drivers stop on any one of the positions on the crank circle at which the power of only one cylinder of the locomotive is available, slack must be taken to place the drivers in a more favorable position . . . That is, unless the locomotive is equipped with The Booster.* » » » The Locomotive Booster gives a nominal increase of only 20% in power, yet, in many cases it increases the starting drawbar pull more than 60%. In one specific case this is true at 214 degrees of the crank circle, at which point the locomotive alone is capable of only 17,500 lbs. When The Booster is added the locomotive and Booster develop 30,000 lbs. . . . an increase of 67%. » » » ***Be Prepared No Matter Where Your Drivers Stop . . . Install The Locomotive Booster!***



*Trademark Registered United States Patent Office

## FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK
CHICAGO
MONTREAL

torney on behalf of the Interstate Commerce Commission and naming as defendants the Union Pacific, the City of Kansas City, Kan., the original promoters De Oreo and Fean, and a number of produce dealers. The proceeding, which charged violation of the Elkins Act, was begun in 1939, after the new terminal had been built. Shortly afterward the Santa Fe, Burlington, Rock Island and Missouri Pacific, which are preparing to build new terminal facilities in Kansas City, Mo., intervened.

The court's opinion included findings of fact to the effect that the Union Pacific and the City of Kansas City, Kan., in 1936, formed a plan for the development of a new terminal at Kansas City, Kan., and that in furtherance of this plan, and in conjunction with De Oreo and Fean and other persons and corporations they acted together in 1937, 1938 and 1939 to induce produce dealers to move their businesses from the eighty-year-old produce district of Kansas City, Mo., to the terminal in Kansas City, Kan., by means of such concessions as free and reduced rents, cash payments, and rental credits purporting to be for the purpose of paying such produce dealers' cost of removal.

The court held that the Union Pacific and the City acted in good faith, believing that the plan adopted would not result in a violation of the Interstate Commerce Act or the Elkins Act. At the same time the court held that these payments, since they were not made to all tenants at the new market and were in the nature of bonuses, fall within the classification of discriminations prohibited by the Elkins Act. "The prohibition of the law," the court said, "applies to any person or corporation whether carrier or not and prohibits the act which produces the forbidden result. Hence it is not necessary that the carriers make the concessions. The City stoutly maintains that so long as its primary motive is to secure tenants and not to divert traffic to the Union Pacific the violation of the purpose of the law may not be restrained. It bases that argument upon the premise that the statutory law as construed by the highest court of the state authorizes it to obtain tenants in the manner stated. Such assertion takes no cognizance of the fact that the Constitution of the United States is controlling and by it Congress is given exclusive power to regulate interstate commerce. Under that constitutional authority Congress may and has by the Elkins Act provided that neither the City of Kansas City, Kan., nor any other corporation or person may for any purpose make concessions which result in discrimination between interstate shippers.

"Until the time came when the necessity for the proposed payments became obvious the Union Pacific had advanced practically all of the necessary funds other than the grant of public (W. P. A.) funds and funds furnished by the city. The Union Pacific knowing it could not legally make the payments said in effect to the city 'here is a method by which we can pay them to move and avoid the letter of the Elkins Act. You pay them, I cannot. I will help you carry out all of the necessary details.' The arrangement was a device within the meaning of the Elkins Act which prohibits concessions 'by any device whatever'."

In its conclusions of law the court held that the part played by the Union Pacific in the promotion, financing, construction, and operation of the new terminal makes it a participant in a joint venture in which it is jointly and equally responsible with the city for the concessions. Upon its findings of fact and conclusions of law the court directed that a judgment be entered for a preliminary injunction and that a form of entry be prepared by counsel for plaintiffs and be submitted to the court on April 5.

## "Barrier" Hoopla Gets Punctured

(*Continued from page 594*)

ways. Mr. Connor disagreed with Mr. Strong, saying that the Kansas port-of-entry system delayed drivers as much as one hour each way. He also complained of what he termed "excessive and duplicate taxation in many of the states."

Both Mr. Banigan and Mr. Smith took the position that interstate trade barriers in the form of conflicting regulations and license fees seriously hampered the operations of private trucks and interstate buses. Several examples were given of how regulations in one state were illegal in an adjoining state, thus creating a serious problem for these operators. To remedy this situation, both recommended more cooperative state action rather than an attempt at federal control.

Mr. Singer had four types of barriers that he wanted the committee to take cognizance of. They were:

1. The requirement that visiting motorists obtain tourist permits and in some instances the payment of fees for such permits.

2. The application of so-called caravaning laws—legislation governing the movement of vehicles moving under their own power or in tow for purposes of sale—to privately-owned and properly licensed vehicles not intended for sale.

3. Agricultural inspection stations which discriminate against motorists as compared with those who use other means of transportation.

4. Restrictions on commercial travelers using their own vehicles.

More state cooperation was the answer to this problem, according to Mr. Singer, but he told the committee that by "focusing the attention of state officials to border barriers," it could contribute much to better highway conditions.

Before reviewing the decisions of the United States Supreme Court on the subject of trade barriers, Mr. Elliott prefaced his remarks by asserting that recent decisions of the Court have gone far toward convincing students of the problem that no sweeping relief from the barriers to interstate trade can be hoped for from the present Court. "In effect," he said, "that Court has been developing in a series of cases that had to do with taxation, motor vehicle control, and some inspection laws, the proposition that Congress and not the Court was the appropriate agency to defend interstate commerce from state action."

Mr. Elliott also thought that the joint federal-state committee (appointed along the lines suggested by Frank Bane, executive director of the Council of State Governments and reviewed in last week's issue) "ought to bring from its studies a new light on the twilight zone of intergovernmental relations." He also told the committee that enforcement and clarification of law are large problems in the area of interstate trade barriers and that cooperative state and federal action are necessary to this end.

## Eastern Roads Advertise Their Lower Fares

Extensive advertising—principally in newspapers, but also employing other media—ushered in the reduction in coach fares by the Eastern railroads on March 24. Joint advertisements of the principal Eastern roads were published in Metropolitan newspapers, stressing the great economy of

**Actual Size of Bronze Lapel Pin Being Worn by B. & M. Employees to Publicize New Rates**

rail travel at two cents per mile—with rates as low as 1½ cents for round trips over the longer distances. The greater comfort and convenience of rail travel was also stressed in these advertisements.

The Boston & Maine embarked in a particularly extensive effort to publicize the new rates, and its campaign is still continuing. In addition to newspaper advertising throughout its territory, featuring the slogan "Take Two Pennies and Ride a Mile," the road enlisted all of its employees in a sales campaign. Special bronze insignia lapel pins were distributed to all employees (as shown in the accompanying illustration) in the form of two pennies joined together, and each employee was urged to repeat the slogan "Take Two Pennies and Ride a Mile" to at least ten non-railroad people during the first ten days of the new fares. In North Station, Boston, the road has placed on display in the main concourse, a revolving barrel filled with shiny new pennies and a guessing contest is being conducted, the guessers being asked to estimate how far this number of pennies would carry them.

In addition, the road's advertising committee addressed a circular letter to all employees with a perforated coupon upon which they are to record both unfavorable and favorable comments which they may hear on the new rates. The circular also conveys information regarding the time the road has contracted for on local radio stations, and discloses its proposed future advertising plans (the theme of which is two cents each serving as a head to a comical twin, each advertisement to portray these twins in attention-compelling antics and smart repartee).

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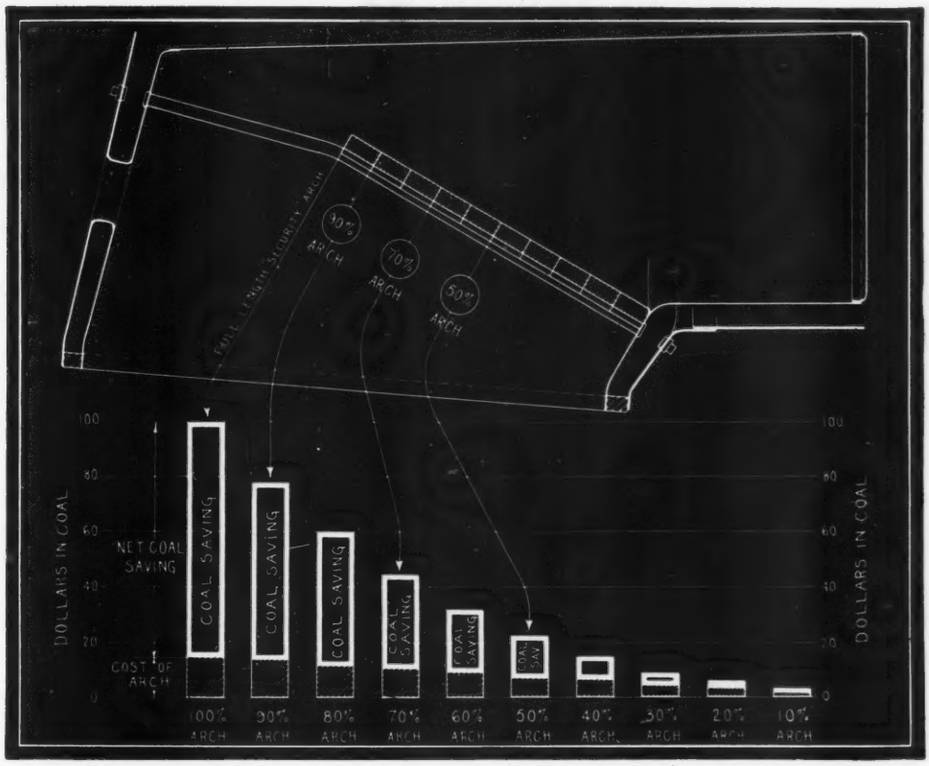



THE EFFECT OF ABBREVIATED ARCHES ON FUEL SAVING

# LET THE ARCH HELP YOU SAVE

**With the emphasis being placed on saving every railroad dollar, the locomotive Arch becomes increasingly important.**

**Regardless of the amount of traffic handled, the locomotive Arch saves enough fuel to pay for itself ten times over.**

**Be sure that every locomotive leaving the roundhouse has its Arch complete with not a single brick nor a single course missing.**

**In this way, you will get more work for each dollar of fuel expense. Skimping on Arch Brick results in a net loss to the railroad.**

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER REFRACTORIES CO.**

***Refractory Specialists***

**AMERICAN ARCH CO.**
**INCORPORATED**
**60 EAST 42nd STREET, NEW YORK, N. Y.**
***Locomotive Combustion Specialists***

# Equipment and Supplies

## More "Rockets" for the Rock Island

Five more Rockets will be added to the Chicago, Rock Island & Pacific's fleet of light weight streamlined trains as a result of the federal district court's order of March 8, approving the acquisition of 5 Diesel electric locomotives and 10 lightweight passenger cars, to cost $1,528,000. The court's action was reported in the *Railway Age* of March 16.

The trustees petition lists two 1,000 hp. and three 2,000 hp. Diesel-electric locomotives, three cafe lounge, three chair, two coach and two mail-baggage cars. Of these, the petition continues, six cars and two locomotives will be used in one train each way daily between Memphis, Tenn., and Amarillo, Tex., to replace the present steam train between Little Rock, Ark., and Amarillo, and the present steam and motor car service between Little Rock and Memphis. Two cars and two locomotives are for one train in each direction daily between Kansas City, Mo., and Colorado Springs, Colo., to replace steam train service. Two cars and one locomotive are for one train daily between St. Louis, Mo., and Minneapolis, Minn., and will replace steam trains operated between Burlington, Iowa, and Manly. It will be operated in conjunction with the Chicago, Burlington & Quincy.

The petition asserts that these new trains will produce operating savings of $192,279 and additional revenue of $350,000. To finance the new equipment the court authorized the Rock Island to sell 1,243 refrigerator cars to the General American Transportation Corporation for $1,345,235 and apply part of this money to the purchase of the new equipment. These refrigerator cars were leased to General American in 1932.

### LOCOMOTIVES

THE UNITED STATES NAVY DEPARTMENT, BUREAU OF SUPPLIES AND ACCOUNTS, Washington, D. C., will receive bids on April 5, for two 50-ton Diesel-electric locomotives, for the Philadelphia, Pa., Navy Yard.

### FREIGHT CARS

THE CHESAPEAKE & OHIO is inquiring for 100 50-ft., 50-ton flat cars.

THE NORFOLK SOUTHERN is inquiring for 40 pulpwood cars and 12 caboose cars.

THE TENNESSEE COAL, IRON & RAILROAD COMPANY contemplates buying 16 air-dump cars of 70 tons' capacity.

THE ALASKA RAILROAD, Interior Department, Federal Office building, Seattle, Wash., will receive bids through its purchasing agent on April 1, for 20 all-steel, self-dumping, twin hopper coal cars, and four steel underframe refrigerator cars, 40 ft. long and of 40 tons' capacity.

NEW YORK CENTRAL.—President F. E. Williamson has announced that contracts have been let for 1,000 steel box cars, all for service on the Pittsburgh & Lake Erie. Five hundred of the cars will be built by the Pullman-Standard Car Manufacturing Co., and 500 by the Pressed Steel Car Co. Inquiry for this equipment was reported in the *Railway Age* of February 24, page 386.

### PASSENGER CARS

THE ALASKA RAILROAD, Interior Department, Federal Office building, Seattle, Wash., will receive bids through its purchasing agent on April 1, for two baggage cars, 60 ft. long and two coaches 70 ft. long.

### MOTOR VEHICLES

THE SANTA FE TRANSPORTATION COMPANY has received delivery of four 37-passenger, parlor car type buses from the a.c.f. Motors Company.

# Construction

CHESAPEAKE & OHIO.—This company contemplates carrying out with its own forces the following projects: Installing crossovers and traffic locking and retiring center sidings, from B. S. Cabin to Jerrys Run, Va.; installing additional yard tracks at Parsons, Ohio. Bids are wanted on April 1, for a 300-ton reinforced concrete coaling station at Charlottesville, Va., and bids will be requested in the near future for a modern brick passenger station to be built at Newport News, Va. Contracts were recently let for a yard office building, underpass, tubes, etc., at Russell, Ky.; contract for the office building was awarded to C. L. Lewis, Lynchburg, Va.; for the sewer and water lines to the Codell Construction Co., Winchester, Ky.; and for the underpass to Thomas Co., Inc., Huntington, W. Va.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—A contract has been awarded Young & Greenawalt, Chicago, for 27 installations of culvert pipe of various sizes up to 72 in. in diameter and up to 393 ft. in length, which will be installed by jacking at various points between Chicago, and Montana.

ERIE.—A revised estimate of cost, exclusive of land and property damages of $231,420, has been approved by the New York Public Service Commission in connection with the elimination of the Broadway crossing of this road, on the Alden Village highway, Alden, N. Y.

ILLINOIS CENTRAL.—A contract has been awarded the Ross and White Company, Chicago, for three Red Devil direct-engine-coalers of a new type for installation on 24-ft. track centers, which will be installed at Mattoon, Ill., Cairo and Benton.

# Supply Trade

**John F. McDonnell** has been appointed western manager of the Railroad division of the **Home Rubber Company,** New York. Mr. McDonnell's office is at 168 North Clinton street, Chicago.

**Edgar C. Thomas,** sales engineer for the **Thomas Machine Manufacturing Company,** Pittsburgh, Pa., has established an eastern district sales office for that company at 1258-W. Commercial Trust building, Philadelphia.

**E. W. Stone,** assistant resident manager in the St. Louis, Mo. office of the **General Railway Signal Company,** has been appointed resident manager, effective April 1.

**John A. Dillon,** whose resignation on January 1, as vice-president in charge of eastern sales at New York of the **Pittsburgh Screw & Bolt Corporation,** Pittsburgh, Pa., was announced in the *Railway Age* of January 13 has formed the **Standard International Sales Corporation,** which will open an office on April 1, in the New York Central building, New York. Mr. Dillon is president of the company and **Norman Allderdice** vice-president and secretary. The company will engage in export and domestic sales of steel and allied products, specializing in sales to railroads, car and locomotive builders, shipbuilders and oil companies.

**Winton J. Heinz** has been appointed manager of railway track, bridge and building equipment for the **Ingersoll-Rand Company,** with headquarters at New York, effective March 1. Mr. Heinz was formerly central manager of the railroad department of this company with headquarters at Cleveland, Ohio. As reported in the *Railway Age* of March 16, Mr. Heinz succeeds **William H. Armstrong,** manager of tie tamper sales, who will retire on September 1.

**Winton J. Heinz**

Mr. Heinz was born on March 4, 1907, at Cleveland, Ohio, and was educated at the Case School of Applied Science, graduating in 1929 with Bachelor of Science and Mechanical Engineering degrees. In June of the same year he entered the service of

*Continued on next left-hand page*

# A Light-weight Open-type

# Feedwater

# Heater

ELESCO

Saves 8%-12% in fuel and water.

Uses exhaust steam to preheat and inject the feedwater into the boiler.

Operates on the non-lifting live steam injector principle.

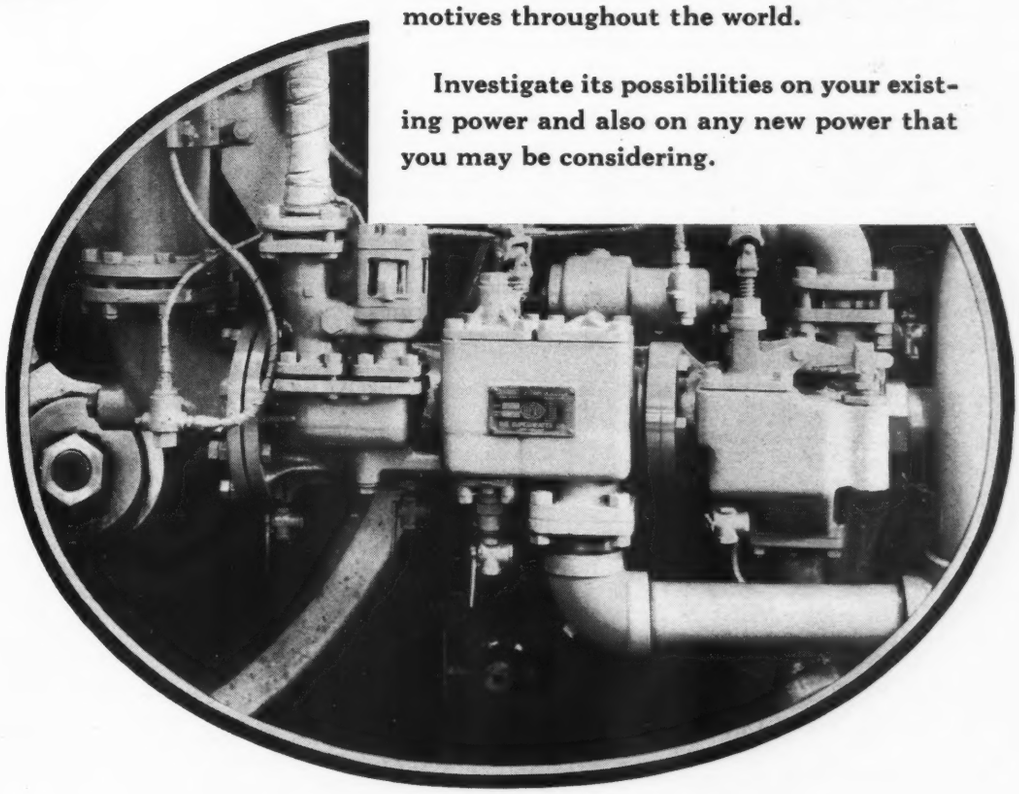
Stable and automatic in operation.

No continuously moving parts to maintain.

Consists of one unit.

More than 20,000 of this type of exhaust steam injector have been applied to locomotives throughout the world.

Investigate its possibilities on your existing power and also on any new power that you may be considering.



## THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK 122 S. Michigan Ave., CHICAGO
Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

A-1400

Superheaters « Exhaust Steam Injectors « Feedwater Heaters « American Throttles « Pyrometers « Steam Dryers

the Ingersoll-Rand Company in the general sales department at Columbus, Ohio, later being transferred to Cleveland. In 1935 he was promoted to central manager of the railroad department with the same headquarters, holding this position until the time of his recent appointment as manager of railway track, bridge and building equipment.

**F. E. Erlandson,** district manager at St. Louis, Mo., of **The Garlock Packing Company,** Palmyra, N. Y., has been appointed district manager of the company's Cleveland, Ohio, branch, succeeding **R. W. Perkins,** resigned. Mr. Erlandson was born in Chicago in 1892, and joined the railroad department of The Garlock Packing Company in Chicago on September 1, 1912. The following year he was transferred to the Chicago branch office in a clerical capacity. In November, 1918, he was appointed office manager of its New York office and about three years later was transferred to the sales department at New York. Early in 1923, he became district manager at New York and in August of that year was transferred to St. Louis as district manager. **H. J. Kuhn,** sales representative of the St. Louis, Mo., branch, has been appointed manager of that branch to succeed Mr. Erlandson. Mr. Kuhn joined the company in August, 1916, as a clerk and remained in that position until April, 1920, with a leave of absence from May, 1918, to June, 1919, during which time he served in the United States Army. From April 1, 1920, to February 1, 1940, he was in the sales department of the St. Louis branch.

**A. W. MacLaren,** assistant vice-president of **American Steel Foundries,** with headquarters at New York, has been elect-

**A. W. MacLaren**

ed vice-president with the same headquarters, to succeed **W. J. Lynch,** retired, and has been succeeded by **E. M. Van Winkle,** sales agent at New York.

Mr. MacLaren entered railway service in 1898 in the accounting department of the Cleveland, Cincinnati, Chicago & St. Louis, at Cincinnati, and in 1899, was promoted to chief clerk in the passenger department, with the same headquarters. In 1902, he became secretary to the president, and in 1905, when the Big Four became a part of the New York Central System, he was promoted to assistant to the vice-president in charge of traffic of the New York Central, with headquarters at Chicago. In 1907, he was transferred to New York, and in 1910 resigned to become general traffic manager of Morris & Company, Chicago. He held this position until 1923, when he resigned to become vice-president in charge of sales of the Chicago Bearing Metal Company, Chicago, and in the following year entered the employ of the American Steel Foundries as sales agent at New York. In 1930, he was promoted to assistant vice-president.

Mr. Van Winkle graduated from Purdue University in 1921 as a chemical engineer

**E. M. Van Winkle**

and immediately entered the employ of the American Steel Foundries as a special apprentice. After serving in various capacities, he was employed in the industrial sales department for ten years and in June, 1939, was appointed sales agent at New York.

Mr. Lynch entered the employ of the American Steel Foundries as vice-president in 1911. For a number of years previous he was employed by the New York Central.

## OBITUARY

**F. C. Snyder,** manager of the railroad department of Fairbanks, Morse & Company, Chicago, died of a heart ailment on March 22. He was born on January 28, 1889, at Au Sable, Mich., and entered the employ of Fairbanks, Morse & Company as a stenographer in 1906. He served overseas during the World War.

## TRADE PUBLICATIONS

BARCO TYTAMPERS.—The Barco Manufacturing Company, Chicago, has published an eight-page catalog, No. 655, attractively printed in color and well illustrated with photographs, describing the construction and operation of its K-1 and TT-2 type Tytampers.

"WILSON ARC WELDING ELECTRODES" is the title of an illustrated 24-page booklet issued by the Wilson Welder & Metals Company, Inc., New York, N. Y. It has been prepared as a guide for making proper selections of electrodes for all kinds of welding work. The physical properties of the electrodes are described and proper application and welding procedure suggested.

# Financial

AKRON & BARBERTON BELT.—*Abandonment of Operation.*—Division 4 of the Interstate Commerce Commission has dismissed an application of this company for authority to abandon operation of its Fairlawn extension between Copley Road, Ohio, and the connection of the extension with the line of the Akron, Canton & Youngstown at Fairlawn Junction, 1.7 miles. Division 4 took the position that the abandonment of the operation of the line was an accomplished fact and that, therefore, it had no authority to pass upon the application.

AKRON, CANTON & YOUNGSTOWN.—*Annual Report.*—The 1939 annual report of this company shows net deficit, after interest and other charges, of $22,539, as compared with net deficit of $244,968 in 1938. Selected items from the consolidated income statement follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $2,048,251 | +$353,812 |
| Maintenance of way | 301,658 | +41,841 |
| Maintenance of equipment | 199,606 | +29,443 |
| Transportation | 642,602 | +51,552 |
| TOTAL OPERATING EXPENSES | 1,413,526 | +132,584 |
| Operating ratio | 69.01 | −6.59 |
| NET REVENUE FROM OPERATIONS | 634,725 | +221,228 |
| Railway tax accruals | 153,308 | −2,954 |
| Hire of freight cars | 177,803 | +1,374 |
| NET RAILWAY OPERATING INCOME | 306,008 | +224,441 |
| TOTAL INCOME | 361,633 | +236,641 |
| Rent for leased roads and equipment | 20,997 | +20,997 |
| Interest on funded debt | 335,570 | −1,891 |
| NET DEDUCTIONS FROM GROSS INCOME | 384,172 | +14,212 |
| NET DEFICIT | $22,539 | −$222,429 |

ASHLAND.—*Abandonment.*—This road has applied to the Interstate Commerce Commission for authority to abandon its 7.1-mile line between Pyriton, Ala., and Ashland.

ATCHISON, TOPEKA & SANTA FE.—*New Director.*—Aubrey Hugo Mellinger, Chicago, president of the Illinois Bell Telephone Company, has been elected a director to succeed Dr. Henry S. Pritchett, New York, deceased.

BALTIMORE & OHIO.—*R. F. C. Loan.*—Division 4 of the Interstate Commerce Commission, at this company's request, has dismissed its application for approval of a $5,330,000 Reconstruction Finance Corporation purchase of equipment trust certificates.

BALTIMORE & OHIO.—*Abandonment by the Gaffney & James City.*—The Gaffney & James City and the Baltimore & Ohio, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon the entire line and the operation of the line extending from Durant City Junction, Pa., to Durant City, 1.6

*Continued on second left-hand page*

# HIGHER REVENUES *With* — HSGI *Wear Resisting* PARTS

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# HUNT-SPILLER *Air Furnace* GUN IRON

miles. Commissioner Mahaffie wrote a short concurring-in-part opinion, stating that he would concur in the action except that he would limit the certificate of the Gaffney & James City to interstate and foreign commerce.

BOSTON & MAINE.—*Annual Report.*—The 1939 annual report of this road shows net income, after interest and other charges, of $707,881, an increase of $5,807,508 as compared with the 1938 figure. Selected items from the Income Account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $46,341,081 | +$6,148,055 |
| TOTAL OPERATING EXPENSES | 33,133,912 | +379,078 |
| Operating ratio | 71.50 | −9.99 |
| NET REVENUE FROM OPERATIONS | 13,207,169 | +5,768,976 |
| Railway tax accruals | 3,519,723 | −188,562 |
| Railway operating income | 9,687,466 | +5,957,539 |
| Equipment and Joint facility rents—Dr. | 2,732,303 | +256,563 |
| NET RAILWAY OPERATING INCOME | 6,955,142 | +5,700,975 |
| Other income | 1,197,321 | +20,066 |
| TOTAL INCOME | 8,152,464 | +5,721,042 |
| Rental Payment | 1,236,987 | −16,880 |
| Interest on debt | 6,059,473 | −11,056 |
| NET INCOME | $707,881 | +$5,807,508 |

BOSTON & MAINE.—*Securities Exchange Plan.*—W. S. Trowbridge, vice-president of this company, has addressed a letter to holders of its bonds informing them that holders of $79,000,000 of the securities affected by the "plan of exchange" have assented to the plan, but that assents must be received from holders of an additional $24,000,000 if the carrier is to avoid filing an application for reorganization under the National Bankruptcy Act. The R. F. C. has agreed to put up $26,000,000 of new money necessary to the consummation of the plan; and it will not do so unless assents are obtained from "substantially all" of the bonds.

CHICAGO UNION STATION.—*Bond Issue.*—The Interstate Commerce Commission on March 28 announced that Division 4 had issued a report and order authorizing the sale of $16,000,000 of 3⅛ per cent first mortgage bonds of this company at not less than 99.43 per cent of par, which is the price offered by a group of investment bankers headed by Kuhn, Loeb & Co., of New York City, as reported in the *Railway Age* of March 23.

CHICAGO, BURLINGTON & QUINCY.—*Abandonment.*—This company would be authorized to abandon the parts of a branch extending from Ayr Junction, Nebr., easterly to Alma Junction, 18 miles, and from Fairfield Junction, Nebr., northerly to Clay Center, 7.2 miles, and to abandon operation under trackage rights over a line of the St. Joseph & Grand Island between Alma Junction, Nebr., and Fairfield Junction, 2.3 miles, if the Interstate Commerce Commission adopts a proposed report of its Examiner A. G. Nye.

CHICAGO & NORTH WESTERN.—*Abandonment.*—This company has asked authority from the Interstate Commerce Commission to abandon its Galena branch, extending from Strawbridge, Wisc., to valuation station 524 plus 89 in Jo Daviess county, Ill., and from Hazel Green Junction, Ill., to the end of the line in LaFayette county, Wisc., 4.9 miles in Wisconsin and 0.3 mile in Illinois.

CANADIAN NATIONAL.—*Annual Report.*—The 1939 annual report for this system shows net deficit, after interest and other charges, of $38,239,264, a decrease of $16,231,732 as compared with net deficit in 1938. Selected items from the consolidated income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $203,820,186 | +$21,578,463 |
| TOTAL OPERATING EXPENSES | 182,965,768 | +6,790,456 |
| NET REVENUE FROM OPERATIONS | 20,854,418 | +14,788,007 |
| Railway tax accruals | 6,246,460 | +292,263 |
| Railway operating income | 14,607,957 | −14,495,744 |
| Hire of Freight Cars—Dr. | 1,651,107 | +247,131 |
| NET RAILWAY OPERATING INCOME | 12,438,388 | +14,571,427 |
| Net Hotel Operating Income | 302,363 | +76,350 |
| Income Available for Fixed Charges | 15,248,900 | +16,268,155 |
| Rent for leased roads and equipment | 1,459,907 | −14,768 |
| Interest on funded debt—Public | 49,814,377 | ..... |
| TOTAL FIXED CHARGES | 53,488,164 | +36,423 |
| NET DEFICIT | $38,239,264 | −$16,231,732 |

CHESAPEAKE & OHIO.—*Annual Report.*—The 1939 annual report of this road shows net income of $27,342,711, after interest and other charges, an increase of $6,659,878 as compared with net income in 1938. Selected items from the income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $118,722,054 | +$12,345,571 |
| Maintenance of way | 11,022,218 | +200,449 |
| Maintenance of equipment* | 23,387,375 | +2,764,736 |
| Transportation | 28,425,588 | +1,352,531 |
| TOTAL OPERATING EXPENSES | 68,859,621 | +4,413,601 |
| Operating ratio | 58.00 | −2.58 |
| NET REVENUE FROM OPERATIONS | 49,862,432 | +7,931,970 |
| Railway tax accruals | 13,296,194 | +699,736 |
| Railway operating income | 36,566,237 | +7,232,233 |
| Equipment rents—Net | 1,023,976 | +116,962 |
| Joint facility rents —Net | 1,236,076 | +21,630 |
| NET RAILWAY OPERATING INCOME | 36,354,138 | +7,370,826 |
| TOTAL INCOME | 37,005,056 | +7,052,506 |
| Rent for leased roads and equipment | 49,446 | +2,806 |
| Interest on debt | 9,469,988 | +365,023 |
| NET INCOME | $27,342,711 | +$6,659,878 |

* Includes depreciation.

DULUTH, MISSABE & IRON RANGE.—*Annual Report.*—The 1939 annual report of this company shows net income of $6,524,069 after interest and other charges, an increase of $6,066,807 as compared with net income in 1938. Selected items from the income statement follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $18,636,679 | +$9,619,872 |
| Maintenance of way | 2,154,421 | +616,158 |
| Maintenance of equipment | 2,577,059 | +444,026 |
| Transportation | 3,511,525 | +974,887 |
| TOTAL OPERATING EXPENSES | 8,667,091 | +2,039,147 |
| Operating ratio | 46.51 | −27.00 |
| NET REVENUE FROM OPERATIONS* | 10,057,222 | +7,640,989 |
| Railway tax accruals† | 1,385,094 | +557,814 |
| Hire of Equipment —Net Cr. | 51,847 | +16,911 |
| Joint facility rents —Net Dr. | 30,558 | −1,219 |
| NET RAILWAY OPERATING INCOME* | 7,376,279 | +5,795,528 |
| Other income | 336,706 | +30,056 |
| GROSS INCOME* | 7,712,985 | +5,825,583 |
| Rent for leased roads | 418 | −297,535 |
| Interest on funded debt | 1,041,518 | −1,759 |
| TOTAL FIXED CHARGES | 1,045,942 | −299,194 |
| NET INCOME | $6,524,069 | +$6,066,807 |

* Exclusive of loss on retirement or sale of road amounting to $87,634.06.
† Exclusive of Federal income tax.

INDIANA HARBOR BELT.—*Annual Report.*—The 1939 annual report of this road shows net income, after interest and other charges, of $1,763,706, an increase of $881,871 as compared with net income in 1938. Selected items from the income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| Average Mileage Operated | 124.62 | +.35 |
| RAILWAY OPERATING REVENUES | $11,491,521 | +$2,426,035 |
| TOTAL OPERATING EXPENSES | 7,098,016 | +1,073,092 |
| Operating ratio | 61.77 | −4.69 |
| NET REVENUE FROM OPERATIONS | 4,393,505 | 1,352,942 |
| Railway tax accruals | 1,000,990 | +187,297 |
| Railway operating income | 3,392,515 | +1,165,644 |
| Equipment rents—Net Dr. | 804,619 | +305,310 |
| Joint facility rents —Net Dr. | 333,529 | −75,425 |
| NET RAILWAY OPERATING INCOME | 2,254,366 | +935,759 |
| Other income | 28,869 | −15,919 |
| TOTAL INCOME | 2,283,235 | +919,839 |
| Rent for leased roads and equipment | 38,658 | +331 |
| Interest on funded debt | 394,520 | −2,499 |
| TOTAL FIXED CHARGES | 442,613 | −2,403 |
| NET INCOME | $1,763,706 | +$881,871 |

ILLINOIS CENTRAL.—*Interest Adjustment Plan of the Chicago, Memphis & Gulf.*—The Interstate Commerce Commission, with Commissioners Mahaffie, Eastman, Miller and Patterson dissenting, has approved an interest adjustment plan for this Illinois Central subsidiary. Briefly, the plan, which was filed under the provisions of the Chandler Act, would modify the provisions of $735,000 of first mortgage five per cent gold bonds by extending the due date thereof from January 1, 1940, to December 31, 1962, and by reducing from

five to three per cent the rate of interest thereon during the extended period, together with other minor changes. The decision differs from a proposed report of a commission examiner who recommended that the road be reorganized under section 77 of the Bankruptcy Act instead of under the Chandler Act.

Commissioner Mahaffie, who wrote the dissent which was concurred in by the other commissioners, said that, in his judgment, the company was in need of financial reorganization and that the approval of this plan merely defers the time when a thorough reorganization will have to take place. Commissioner Splawn took no part in deciding the case.

LONG ISLAND.—*Annual Report.*—The 1939 annual report of this company shows net deficit of $1,738,152 after interest and other charges, a decrease of $471,523 as compared with net deficit in 1938. Selected items from the income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| Average Mileage Operated | 378.59 | −4.80 |
| RAILWAY OPERATING REVENUES | $25,558,212 | +$2,250,521 |
| Maintenance of way | 2,504,023 | +535,960 |
| Maintenance of equipment | 4,068,127 | +193,082 |
| Transportation | 12,024,663 | +529,179 |
| TOTAL OPERATING EXPENSES | 19,170,490 | +1,327,832 |
| Operating ratio | 75.0 | −1.6 |
| NET REVENUE FROM OPERATIONS | 6,387,722 | +922,689 |
| Railway tax accruals | 3,615,879 | +67,333 |
| Railway operating income | 2,771,842 | +855,355 |
| Hire of Equipment—Dr. | 384,039 | +21,084 |
| Joint facility rents—Dr. | 2,129,708 | +358,211 |
| NET RAILWAY OPERATING INCOME | 258,095 | +476,059 |
| Other income | 476,154 | +49,913 |
| GROSS INCOME | 734,249 | +525,972 |
| Rent for leased roads | 60,000 | ..... |
| Interest on funded debt | 2,145,406 | +53,422 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 2,472,402 | +54,448 |
| NET DEFICIT | $1,738,152 | −$471,523 |

MISSOURI PACIFIC.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a branch line extending from a connection with its main line between Little Rock, Ark., and Fort Smith, at Alix, Ark., eastward to Coal Hill, 3.9 miles.

MISSOURI PACIFIC.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has denied a petition of the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees for authority to intervene in this company's reorganization proceedings under section 77 of the Bankruptcy Act and to have the case reopened for further testimony on the merits of the final plan of reorganization promulgated by the commission on January 10, 1940.

NEW YORK, ONTARIO & WESTERN.—*Annual Report.*—The 1939 annual report of this company shows net deficit of $1,882,783 after interest and other charges. This is a decrease of $111,531 as compared with net deficit in 1938. Selected items from the income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $6,014,156 | −$425,499 |
| Maintenance of way | 679,008 | −129,645 |
| Maintenance of equipment | 1,280,269 | −292,567 |
| Transportation | 3,095,685 | −31,101 |
| TOTAL OPERATING EXPENSES | 5,519,524 | −454,632 |
| Operating ratio | 91.78 | −0.99 |
| NET REVENUE FROM OPERATIONS | 494,631 | +29,133 |
| Railway tax accruals | 542,594 | −70,726 |
| Railway operating income* | 47,962 | −99,859 |
| Net rents—Dr. | 448,712 | −2,962 |
| NET RAILWAY OPERATING INCOME* | 496,674 | −102,822 |
| Other income | 32,606 | +9,877 |
| TOTAL INCOME | 464,067 | −112,699 |
| Rent for leased roads and equipment | 111,289 | −446 |
| Interest on funded debt | 1,225,130 | −5,684 |
| TOTAL FIXED CHARGES | 1,416,014 | −2,099 |
| NET DEFICIT | $1,882,783 | −$111,531 |

* Deficit.

OHIO-MIDLAND.—*Lease of the Ohio-Midland Light & Power Company.*—Division 4 of the Interstate Commerce Commission has authorized the Ohio-Midland to lease a line owned by the Ohio-Midland Light & Power Company extending from Picway, Ohio, to Groveport, 13.4 miles.

*Stock.*—At the same time Division 4 authorized this company to issue 100 shares of common stock with a par value of $100 a share, to be sold at par and the proceeds used to pay organization expenses and to provide working capital.

PACIFIC COAST.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon its so-called Sisquoc branch extending from Sisquoc, Calif., to Palmer, 3.9 miles.

SOUTHERN PACIFIC.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a part of its San Jose-Santa Cruz branch, extending from Los Gatos, Calif., to Olympia, 15.2 miles.

SOUTHERN PACIFIC.—*Annual Report.*—The annual report of this company for the year ended December 31, 1939, shows net income of $6,134,574, after interest and other charges, an increase of $12,963,582 as compared with net income in 1938. Selected items from the income account follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $217,572,889 | +$17,502,075 |
| Maintenance of way | 22,151,816 | −1,883,020 |
| Maintenance of equipment | 37,294,441 | +3,066,588 |
| Transportation | 80,989,715 | +231,299 |
| TOTAL OPERATING EXPENSES | 159,441,622 | +2,194,954 |
| NET REVENUE FROM OPERATIONS | 58,131,266 | +15,307,121 |
| Railway tax accruals | 18,092,561 | +162,496 |
| Equipment and Joint facility rents—net | 11,610,294 | +1,013,218 |
| NET RAILWAY OPERATING INCOME | 28,428,410 | +14,131,406 |
| Other income ..... | 9,260,666 | −2,015,446 |
| TOTAL INCOME | 37,689,076 | +12,115,960 |
| Rent for leased roads and equipment | 31,064 | +1,698 |
| Interest on funded debt | 29,211,572 | −217,850 |
| TOTAL FIXED CHARGES. | 30,007,291 | −712,703 |
| NET INCOME | $6,134,574 | +$12,963,582 |

TEXAS & PACIFIC.—*Annual Report.*—The annual report of this road for the year ended December 31, 1939, shows net income, after interest and other charges, of $960,599, a decrease of $461,255 as compared with net income in 1938. Selected items from the income account follow:

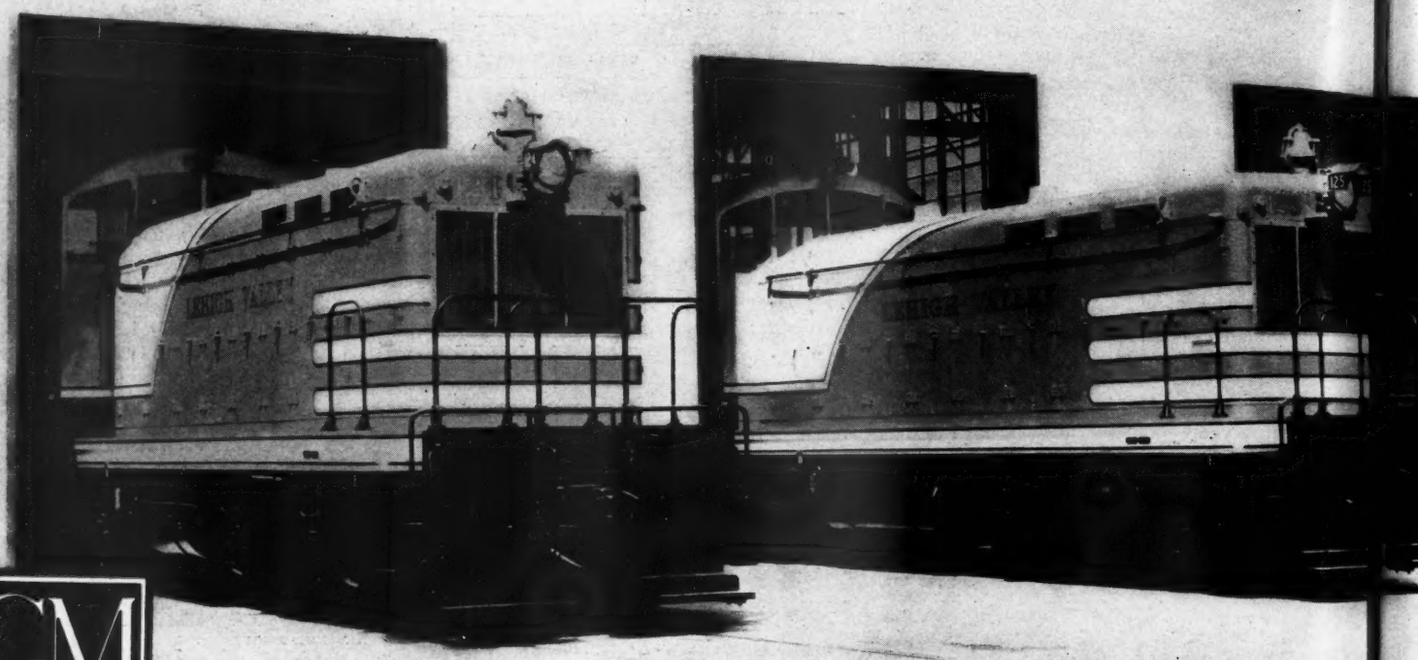
| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $26,454,095 | +$72,391 |
| Maintenance of way | 3,092,845 | +353,377 |
| Maintenance of equipment | 5,231,828 | +544,275 |
| Transportation | 8,396,190 | −232,861 |
| TOTAL OPERATING EXPENSES | 18,972,437 | +617,260 |
| NET REVENUE FROM OPERATIONS | 7,481,658 | −544,868 |
| Railway tax accruals | 1,966,805 | +35,675 |
| Railway operating income | 5,514,852 | −580,544 |
| Net rents | 1,149,631 | −174,346 |
| NET RAILWAY OPERATING INCOME | 4,365,221 | −406,197 |
| Other income | 587,948 | −136,114 |
| TOTAL INCOME | 4,953,169 | −542,312 |
| Interest on funded debt | 3,885,178 | −45,363 |
| TOTAL FIXED CHARGES | 3,895,051 | −52,198 |
| NET INCOME | $960,599 | −$461,255 |

TENNESSEE CENTRAL.—*Annual Report.*—The 1939 annual report of this company shows net income, after interest and other charges, of $85,126, an increase of $40,435 as compared with net income in 1938. Selected items from the income statement follow:

| | 1939 | Increase or Decrease Compared with 1938 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $2,462,149 | +$182,974 |
| Maintenance of way | 410,322 | +54,199 |
| Maintenance of equipment | 378,554 | +51,424 |
| Transportation | 851,427 | +37,705 |
| TOTAL OPERATING EXPENSES | 1,837,059 | +148,495 |
| Operating ratio | 74.61 | +0.52 |
| NET REVENUE FROM OPERATIONS | 625,090 | +34,479 |
| Railway tax accruals | 161,291 | +10,202 |
| Railway operating income | 463,799 | +24,276 |
| Equipment rents—net dr. | 159,015 | −31,212 |
| Joint facility rents—Net dr. | 5,942 | −95 |
| NET RAILWAY OPERATING INCOME | 298,840 | +55,584 |
| Non-operating income | 31,688 | +13,506 |
| GROSS INCOME | 495,487 | +37,783 |
| Rent for leased roads and equipment | 33,171 | +30,694 |
| Interest on funded debt | 205,812 | −2,250 |

*Continued on second left-hand page*

# PROFIT-PRODUC



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E CORPORATION

S LA GRANGE, ILLINOIS, U. S. A.

| | | |
|---|---|---|
| Total Deductions From Gross Income | 410,361 | −2,652 |
| Net Income | $85,126 | +$40,435 |

Union Pacific.—*Operation and Construction by the Los Angeles & Salt Lake.*—The Union Pacific and the Los Angeles & Salt Lake have asked the Interstate Commerce Commission for authority to operate under trackage rights over a portion of the single track of railroad owned by the Utah-Idaho Sugar Company for a distance of approximately one mile; also to operate over the single main track of the Tintic branch of the Denver & Rio Grande Western for a distance of approximately 0.3 mile; also to operate over certain side and industrial trackage owned individually by the D. & R. G. W. and the Salt Lake & Utah, and used in connection with serving the plant of the Utah-Idaho Sugar Company, for distances of 1.6 miles and 0.5 mile respectively, all the trackage being in Spanish Fork, Utah.

Also, authority is required by these companies to construct and operate a set out track and the necessary trackage connections between their own main line at mile post 743.72 and the single track railroad owned by the Utah-Idaho Sugar Company, the length of the set-out track and connections being approximately 1,980 ft., near Spanish Fork, Utah.

Wabash.—*Abandonment.*—This company has been denied authority by Division 4 of the Interstate Commerce Commission to abandon its Glasgow branch, extending from Salisbury, Mo., to Glasgow, 15.4 miles. Division 4 found that "There appears to be sufficient traffic in the tributary territory to warrant continued operation if the shippers continue to patronize it as in the past. The industries served by the branch should be given full opportunity to demonstrate their ability to provide sufficient traffic to insure continued operation on a profitable basis."

Commissioner Mahaffie dissented, saying that he doubted the dependability of the cost figures submitted in the case. After pointing out that the Alton serves Glasgow by a main-line daily service, whereas the Wabash branch line furnishes service only tri-weekly, Commissioner Mahaffie said that "It seems clear that Glasgow, while it may have its feelings hurt, will not be seriously inconvenienced by the abandonment of this branch. Aside from Glasgow, there is very little traffic that will be in any way inconvenienced.

"When it is apparent, as it is here, that future operations can be conducted only at a loss, and when public inconvenience is so slight, we ought not to demand a record of historical losses before authorizing abandonment. Regulation to be sound must not only look backward."

## Dividends Declared

Carolina, Clinchfield & Ohio.—$1.25, quarterly, payable April 20 to holders of record April 10.

## Average Prices of Stocks and Bonds

| | Mar. 26 | Last week | Last year |
|---|---|---|---|
| Average price of 20 representative railway stocks.. | 30.93 | 31.02 | 33.10 |
| Average price of 20 representative railway bonds.. | 58.93 | 58.73 | 61.94 |

# Railway Officers

## OPERATING

**N. P. North,** division superintendent on the Canadian National at Dauphin, Man., has been transferred to Winnipeg, Man., succeeding **Walter J. Donally,** whose death on March 2 was announced in the *Railway Age* of March 16. **W. G. Cunningham,** assistant superintendent at Fort Rouge, Man., has been promoted to superintendent at Dauphin, relieving Mr. North.

**Del E. Leonard,** a trainmaster on the Wabash, has been promoted to superintendent of the St. Louis Terminal division, with headquarters at St. Louis, Mo., succeeding **H. G. Pace,** who has been transferred to Montpelier, Ohio, relieving **Chester A. Johnston.** Mr. Johnston was transferred to Decatur, Ill., replacing **E. Haney,** whose death on March 15 is announced elsewhere in these columns.

**E. L. Henry,** assistant to the general manager in charge of safety, of the Chicago & North Western, with headquarters at Chicago, has been appointed superintendent of safety with the same headquarters. The positions of district general superintendents will be abolished and replaced by general managers. In this change, **F. J. Byington,** general superintendent of the Eastern district at Chicago, has been appointed general manager, Eastern district, with the same headquarters: **C. E. Sainsbury,** general superintendent of the Western district at Omaha, becomes general manager of this district, with the same headquarters: and **W. A. Kraemer,** assistant general superintendent of the Eastern district at Chicago, becomes assistant general manager of this district, with the same headquarters.

**Wm. Randolph Olive,** whose appointment as superintendent of the Seaboard Air Line, with headquarters at Hamlet, N. C., was announced in the *Railway Age* of February 3, was born on October 17, 1889, at Apex, N. C. He entered railroad service on October 19, 1908, with the Seaboard Air Line as an operator holding this position until November, 1912, when he was appointed dispatcher. In January, 1916, Mr. Olive became night chief dispatcher, and in September, 1918, assistant chief dispatcher. He was appointed chief dispatcher in September, 1920, relinquishing this position in December, 1923, to become terminal trainmaster. In October, 1924, he was appointed assistant trainmaster, and in June, 1927, trainmaster, in which capacity he remained until his recent appointment as superintendent.

## TRAFFIC

**Martin C. Burton,** general freight agent of the Atchison, Topeka & Santa Fe, with headquarters at Galveston, Tex., has been promoted to assistant freight traffic manager, with headquarters at Topeka, Kan., to succeed **Robert G. Merrick,** who retires March 31, and has been succeeded by **Elmer B. Johnson,** general freight and passenger agent of the Panhandle & Santa Fe, at Amarillo. **Henry C. Vincent,** general passenger agent of Topeka, Kan., succeeds Mr. Johnson and **Raymond T. Anderson,** division passenger agent at Denver, Colo., succeeds Mr. Vincent, while **Joseph W. Arner,** passenger agent at Los Angeles, succeeds Mr. Anderson. **John A. Fitzgerald,** assistant general freight agent at Kansas City, Mo., has been appointed general eastern freight agent at New York to succeed the late **Ralph P. Bird,** and has been succeeded by **Robert S. Hirsch,** division freight agent at Los Angeles. **Leonard G. Sills,** division freight and passenger agent at San Bernardino, Cal., succeeds Mr. Hirsch, **Walter M. Krames,** assistant division freight agent at Los Angeles, succeeds Mr. Sills and **Louis W. O'Brien,** traveling freight agent at Los Angeles, succeeds Mr. Krames. **Harold B. Brown,** city freight agent at New York, has been promoted to export and import agent, with the same headquarters.

**P. J. Napoli** has been appointed assistant manager of perishable and dairy traffic of the Erie, with headquarters at New York.

**W. H. Hawes** has been appointed assistant general freight agent of the Duluth, South Shore & Atlantic, with headquarters at Detroit, Mich., effective April 1. The position of general agent at Detroit has been abolished.

**Kenneth G. Carlson,** assistant to the vice-president in charge of traffic of the Union Pacific, with headquarters at Omaha, Neb., has been promoted to assistant general freight traffic manager, with the same headquarters, a newly created position and **P. F. Echele,** general agent, freight department, at Omaha, has been advanced to assistant to the vice-president of traffic, succeeding Mr. Carlson. **J. D. Whitmore,** assistant freight traffic manager at Omaha, has been advanced to assistant general freight traffic manager, with the same headquarters. **J. E. Davis,** assistant freight traffic manager, has been appointed assistant general freight traffic manager with headquarters as before at Omaha, and **Carll C. Beach,** assistant to the freight traffic manager, has been appointed assistant to the general freight traffic manager, with headquarters as before at Omaha. **E. A. Klippel,** assistant general passenger agent at Omaha, has been advanced to general passenger agent, with the same headquarters. **C. T. Carey,** special representative in charge of Sun Valley solicitation has been promoted to assistant passenger traffic manager in charge of Sun Valley solicitation, a newly created position, with headquarters at Omaha. **R. T. Payne,** chief clerk in the solicitation bureau, has been advanced to general agent, freight department, at Omaha, relieving Mr. Echele,

Photographs and biographical sketches of Mr. Carlson and Mr. Davis were published in *Railway Age* of June 17, and July 8, 1939 respectively, following the promotion

of Mr. Carlson to general freight agent at Denver, Colo., and of Mr. Davis to assistant freight traffic manager at Omaha. Mr. Carlson was further advanced to assistant to the vice-president at Omaha a few weeks after his promotion to general freight agent at Denver.

## MECHANICAL

**H. C. Gugler,** master mechanic on the Chicago, Burlington & Quincy at Chicago, has been appointed superintendent of shops at Aurora, Ill., succeeding **J. W. Cyr,** who has retired. **E. J. Cyr,** master mechanic at McCook, Neb., has been transferred to Chicago, relieving Mr. Gugler and **C. E. Bloom,** master mechanic at Casper, Wyo., has been transferred to McCook, replacing E. J. Cyr. **William Schwartz,** day roundhouse foreman at Casper, has been promoted to master mechanic at that point succeeding Mr. Bloom.

## ENGINEERING AND SIGNALING

**Willard J. Strout,** principal assistant engineer of the Bangor & Aroostook, has been appointed acting chief engineer, with headquarters as before at Houlton, Me., to succeed **Parker C. Newbegin,** deceased.

**John W. Porter,** office engineer of the Western region of the Canadian National, with headquarters at Winnipeg, Man., has been promoted to principal assistant engineer and right of way agent of the Western region, with the same headquarters.

**R. B. Elsworth,** assistant signal engineer, has been appointed signal engineer, Line Buffalo and East, of the New York Central with headquarters as before at Albany, N. Y. **J. F. Corcoran,** assistant signal supervisor, with headquarters at New York, has been appointed signal engineer, Line West of Buffalo, including Michigan Central and Cleveland, Cincinnati, Chicago & St. Louis operating districts, with headquarters at Cleveland. These appointments are effective April 1.

Effective April 1, **C. T. Dike,** vice-president and chief engineer of the Chicago & North Western, with headquarters at Chicago, will be relieved of his duties as chief engineer, but will continue in his capacity, as vice-president. **B. R. Kulp,** engineer maintenance, with headquarters at Chicago, has been promoted to chief engineer, reporting to the chief operating officer, succeeding Mr. Dike, and has been succeeded by **E. C. Vandenburgh,** division engineer of the Northern Iowa and Sioux City divisions, with headquarters at Sioux City, Ia. **L. R. Lamport,** supervisor of work equipment at Chicago, succeeds Mr. Vandenburgh, and **H. Mayer,** supervisor of scales at Chicago, has been appointed supervisor of scales and work equipment in a consolidation of the scales and work equipment departments.

**F. B. Wiegand,** signal engineer of the New York Central, with headquarters at Cleveland, retired on April 1. Mr. Wiegand entered the service of the New York Central & Hudson River, now the New York Central, on April 12, 1891, as a signal maintainer. In May, 1894, he was appointed signal inspector on the Harlem division and in October, 1901, he was appointed assistant signal supervisor on the Hudson division. In July, 1902, he was promoted to signal supervisor on the River division. Mr. Wiegand was appointed general signal inspector of the entire road in March, 1903, and three months later was appointed signal supervisor of the Mohawk division. In July, 1906, he was appointed assistant signal engineer of the Lake Shore & Michigan Southern (now part of the New York Central), and in October, 1913, he was promoted to signal engineer of the New York Central, Lines west of Buffalo. In 1922, Mr. Wiegand acted also in a consulting capacity for the Cleveland Union Terminals Company, and on March 1, 1925, his jurisdiction was extended over the Ohio Central lines, which railroad at that time was leased by the New York Central. On September 1, 1933, his jurisdiction was extended to include the Lines east of Buffalo, and on June 1, 1937, his jurisdiction was extended over the Michigan Central. On September 1, 1937, his jurisdiction was extended again to include the Cleveland, Cincinnati, Chicago & St. Louis. For many years Mr. Wiegand has been active in the work of the Signal Section, A. A. R., and he served as chairman of that body in 1922.

## PURCHASES AND STORES

**U. K. Hall,** general storekeeper of the Union Pacific, with headquarters at Omaha, Neb., will retire on March 31, because of ill health, after 42 years continuous service on the Union Pacific. Mr. Hall was born at Portland, Ore., on September 12, 1878, and entered railway service in 1897 with the Union Pacific System. He advanced through various positions in the purchasing, accounting, operating, engineering and stores departments. He was appointed general storekeeper of the Oregon-Washington Railroad & Navigation Company (now a part of the Union Pacific) at Portland, Ore., in 1913, which position he held until 1916 when he was sent to Omaha as general storekeeper of the Union Pacific. During the World War Mr. Hall was stationed at Washington, D. C., as assistant to the manager of stores of the United States Railroad Administration. Following the war he was appointed general supervisor of stores of the Union Pacific System, which position he held until April, 1932, when his title was changed to general storekeeper of the system. In January, 1933, he became general purchasing agent, with headquarters at Omaha, and in August, 1937, he was re-appointed general storekeeper. Mr. Hall served as chairman of the Purchases and Stores division of the American Railway Association in 1923-24 and is at present a member of the advisory committee of the Purchases and Stores Division.

## OBITUARY

**James C. Irwin,** retired valuation engineer of the Boston & Albany and a past president of the American Railway Engineering Association (1937-8), whose death on March 20 was reported in the *Railway Age* of March 23, retired from active service in 1938 after 46 years of service with the New York Central System of which the Boston & Albany is a constituent line. He was a native of Cheyney, Pa., and was

**James C. Irwin**

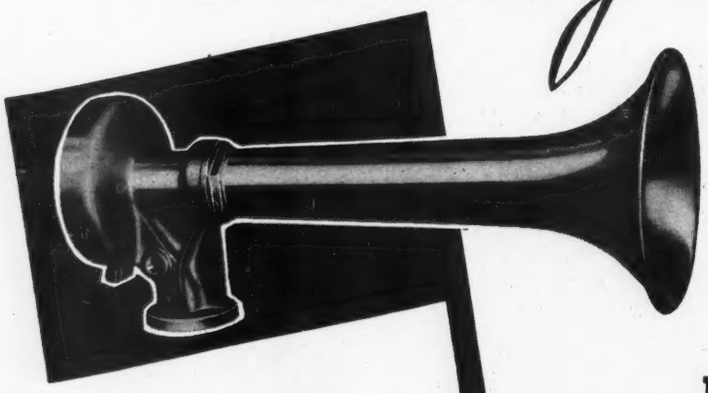
born on September 23, 1868. Mr. Irwin received his higher education at the University of Pennsylvania where he received a Bachelor of Science degree in 1890 and that of Civil Engineer in 1891. He first entered the service of the New York Central in 1892 on signal construction work. In the following year he became an assistant trainmaster, and in 1894, he was promoted to superintendent of the Hudson River Bridge Company, later becoming assistant superintendent of signals of the Mohawk division. In 1898, he was appointed division engineer of the Middle division, and after four years in this capacity he became general assistant to the chief engineer, and engineer of signals. Late in 1902, he was appointed assistant to general superintendent, and in the following year he was made superintendent of the Lake Erie, Alliance & Wheeling (part of the N. Y. C.). Later in the same year Mr. Irwin became attached to the staff of the vice-president of construction, and from 1906 to 1909 he served as superintendent of construction in the electrified zone and as resident engineer on the construction of the Grand Central terminal at New York. Mr. Irwin then became chief engineer of the Rutland, but after three years in this capacity he went with the Boston & Albany as valuation engineer, which position he held until his retirement. Among other activities, Mr. Irwin had served as chairman of the Standards Council of the American Standards Association, as a director of the A. S. A., and as president of the New England Railroad Club.

**E. Haney,** division superintendent on the Wabash, with headquarters at Decatur, Ill., died suddenly of a heart attack on March 15.

**Michael Harrison Cahill,** who resigned as president and chairman of the board of the Missouri-Kansas-Texas in 1934, died on March 26, at Palo Alto, Cal.

# *Reaching a New Note*

## in AIR ALARM SIGNALS



### E-2 "Pneuphonic" Horn

♩ **UNIQUE**
in Tone Quality

♪ **POWERFUL**
in Sound Capacity

♫ **RELIABLE**
in Performance

♬ **ECONOMICAL**
in its Use of Air

♩ A deep, clear tone, easily distinguished from signals of motor highway vehicles, gives unmistakable warning of approach.

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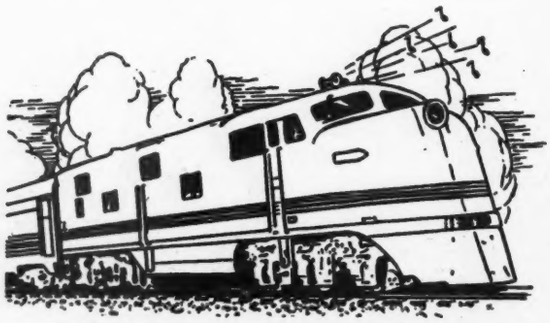
♫ Trust-worthy performance is assured by rugged construction—vibrating unit a sturdy laminated diaphragm; bell and supporting bracket substantial castings.

♬ Air consumption is very much less than with any other known horn of equal tone and carrying capacity.



The E-2 "Pneuphonic" Horn is applicable to all types of modern locomotives.

Extended service trials under all conditions have demonstrated the superior merits of this horn, the E-2 "Pneuphonic"

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**WESTINGHOUSE AIR BRAKE COMPANY**

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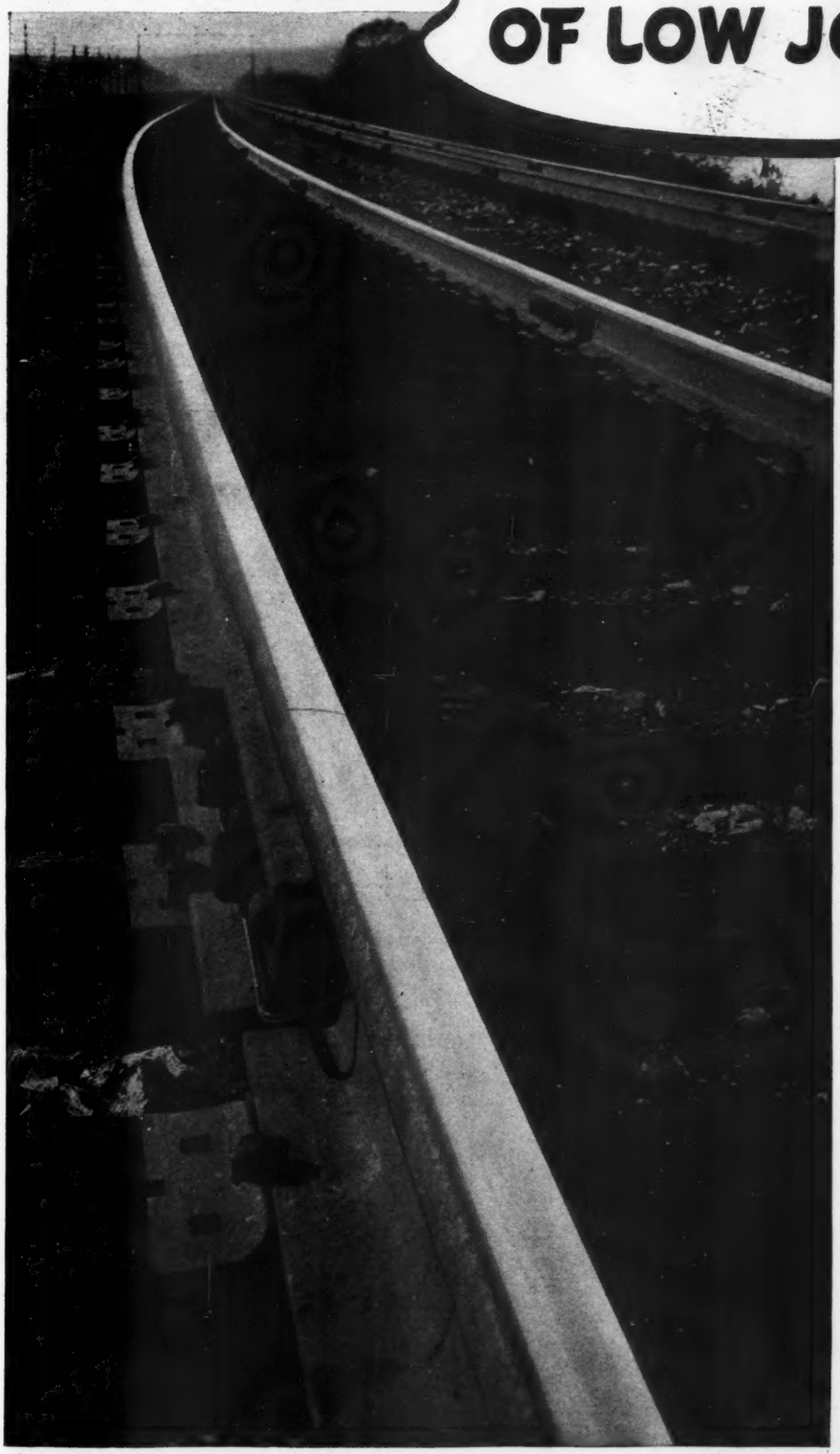
# LEVEL THE LITTLE HILLS OF LOW JOINTS



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The strength and tenacity of Bethlehem Heat Treated Bolts and Hot Forged Nuts fit them for the hardest rail joint service. They keep end batter and low joints at the minimum. They materially reduce maintenance costs.

*We are licensed to manufacture Dardelet thread track bolts.*

**BETHLEHEM STEEL COMPANY**

BETHLEHEM STEEL

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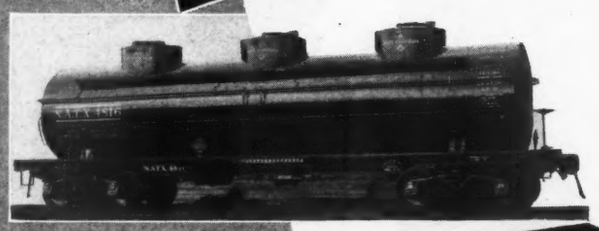

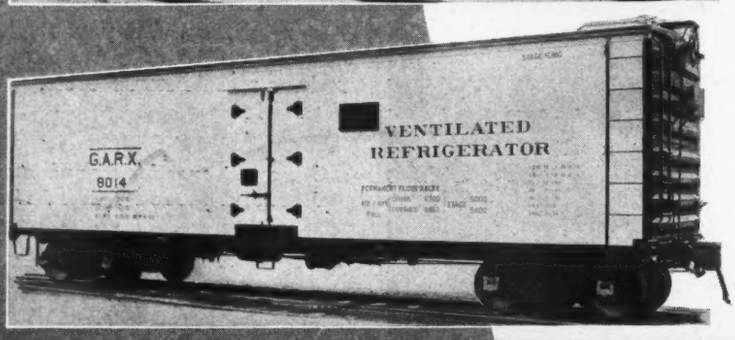


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**The basic principles behind this truck are RIGHT. It is the ONLY truck that is *initially tight* and always *stays tight.***

**Looseness and wear between bolsters and columns are eliminated. No more broken springs. A smooth riding car under *all conditions* of car load or speed and years of satisfactory service, assured.**

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**Designed for use with or without spring planks—also with or without lateral motion.**

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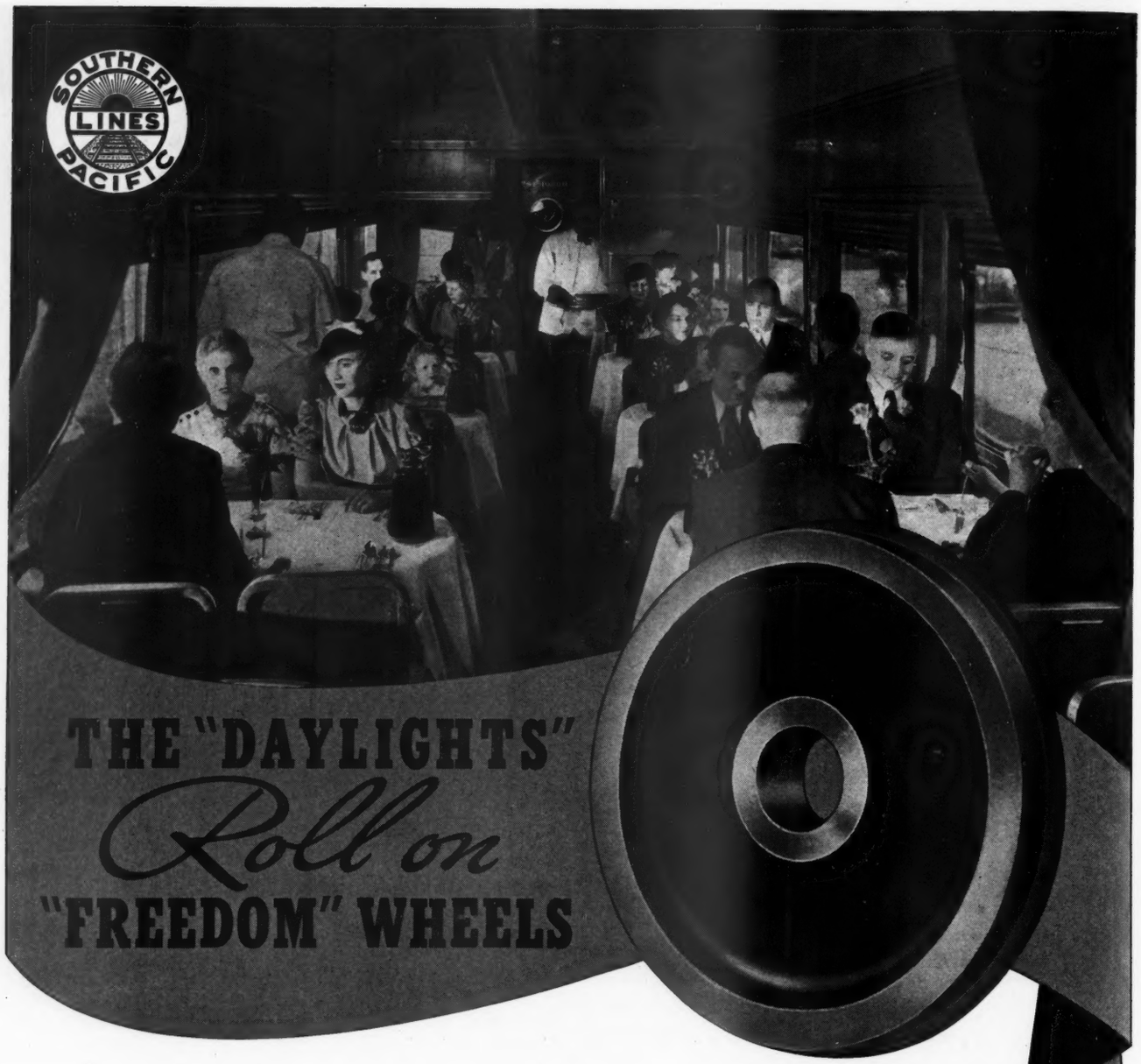


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## A RAILWAY CAR IS ONLY AS STRONG AS ITS WEAKEST JOINT

• *Budd has said, and Budd is proud to say again, that no Budd-built car has ever failed because of a structural defect. Every joint is capable of withstanding the most bruising treatment. Every weld is strong and tough, made to bear terrific stress.*

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• *The unqualified success of Budd construction methods has been proved by the performance of Budd trains under all operating conditions.* ★REG. U. S. PAT. OFF.

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**For *The Eagle*, Missouri Pacific's fine new daylight train, Raymond Loewy, American Car and Foundry, and the railroad found a Chase Velmo color and texture to meet every requirement in chair, parlor and dining cars . . . a fabric to meet every demand.**

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# IN THE MATTER OF FIRE-BOX MAINTENANCE...

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In actual practice on several railroads, Carbon-Molybdenum steel is proving an efficient and economical remedy for fire-box troubles, reducing both maintenance costs and locomotive shop time. The strength of Carbon-Molybdenum steel at fire-box temperatures is a major contributing factor to this result.

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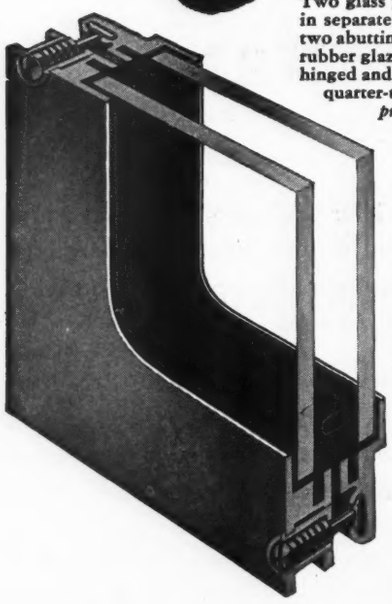
## *without* Fog • Film • Frost



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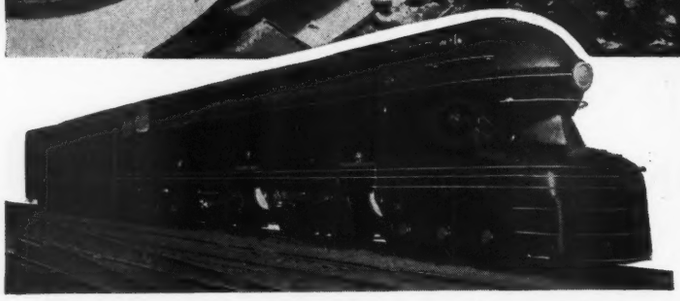

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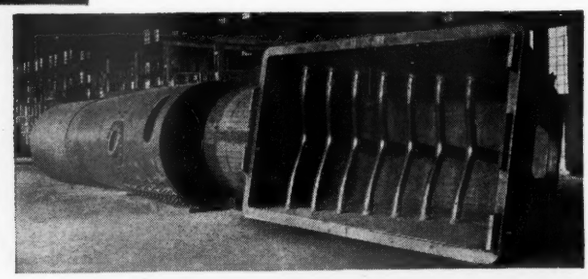

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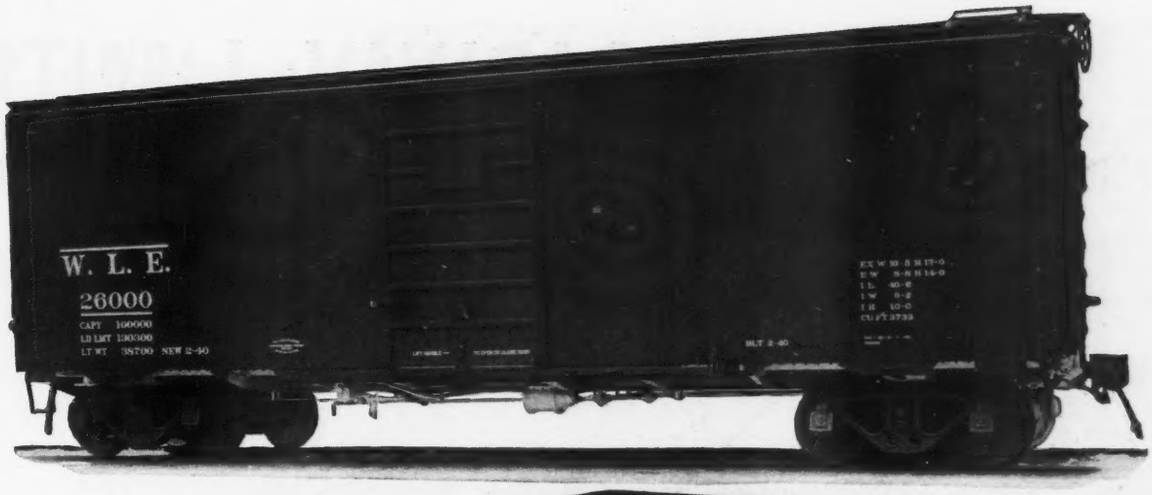

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NOW IN SERVICE ON 23 TYPES OF STEAM POWER IN THE UNITED STATES AND CANADA

*Assure—*

**ECONOMY**
**DURABILITY**
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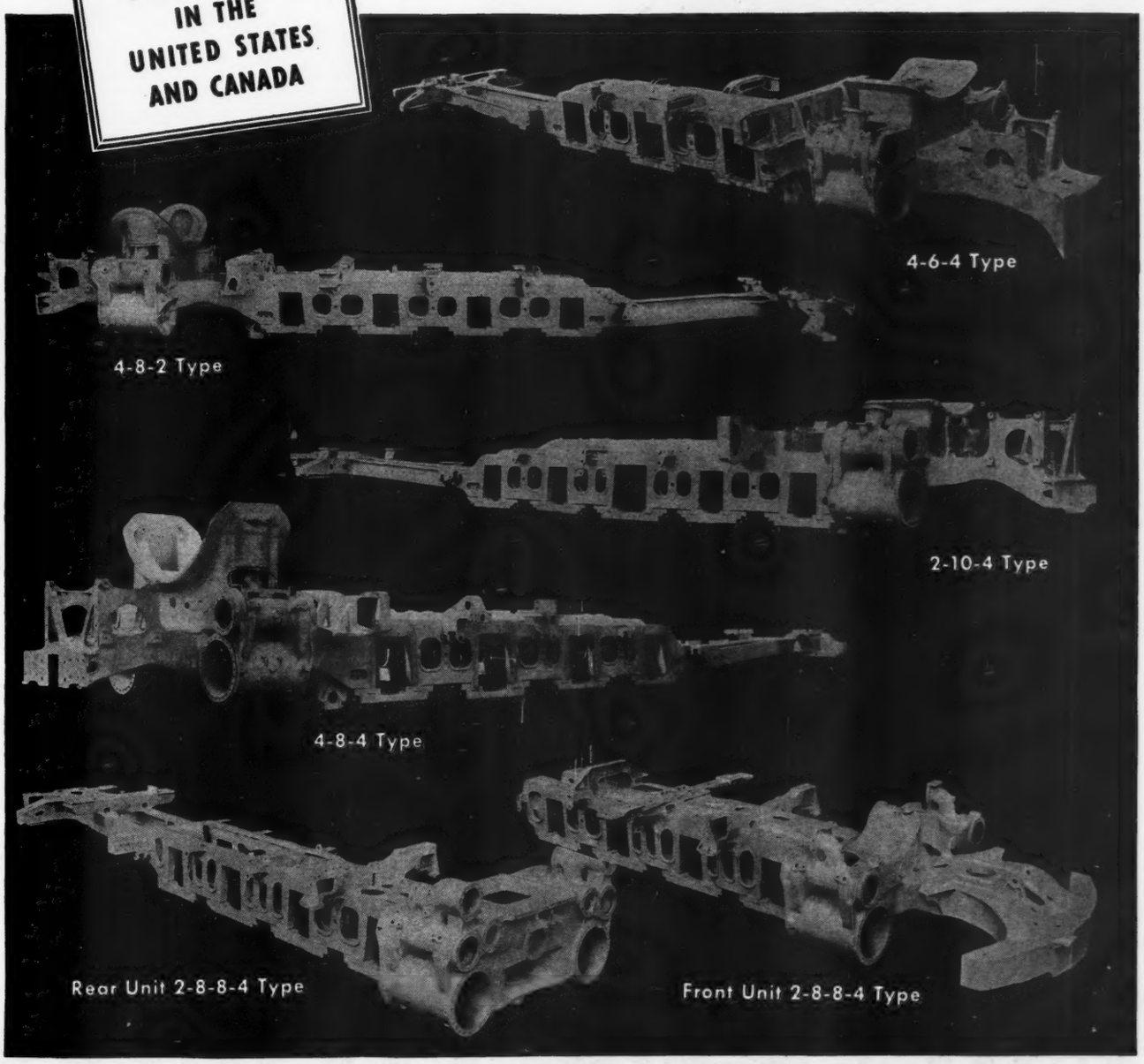


## GENERAL STEEL CASTINGS

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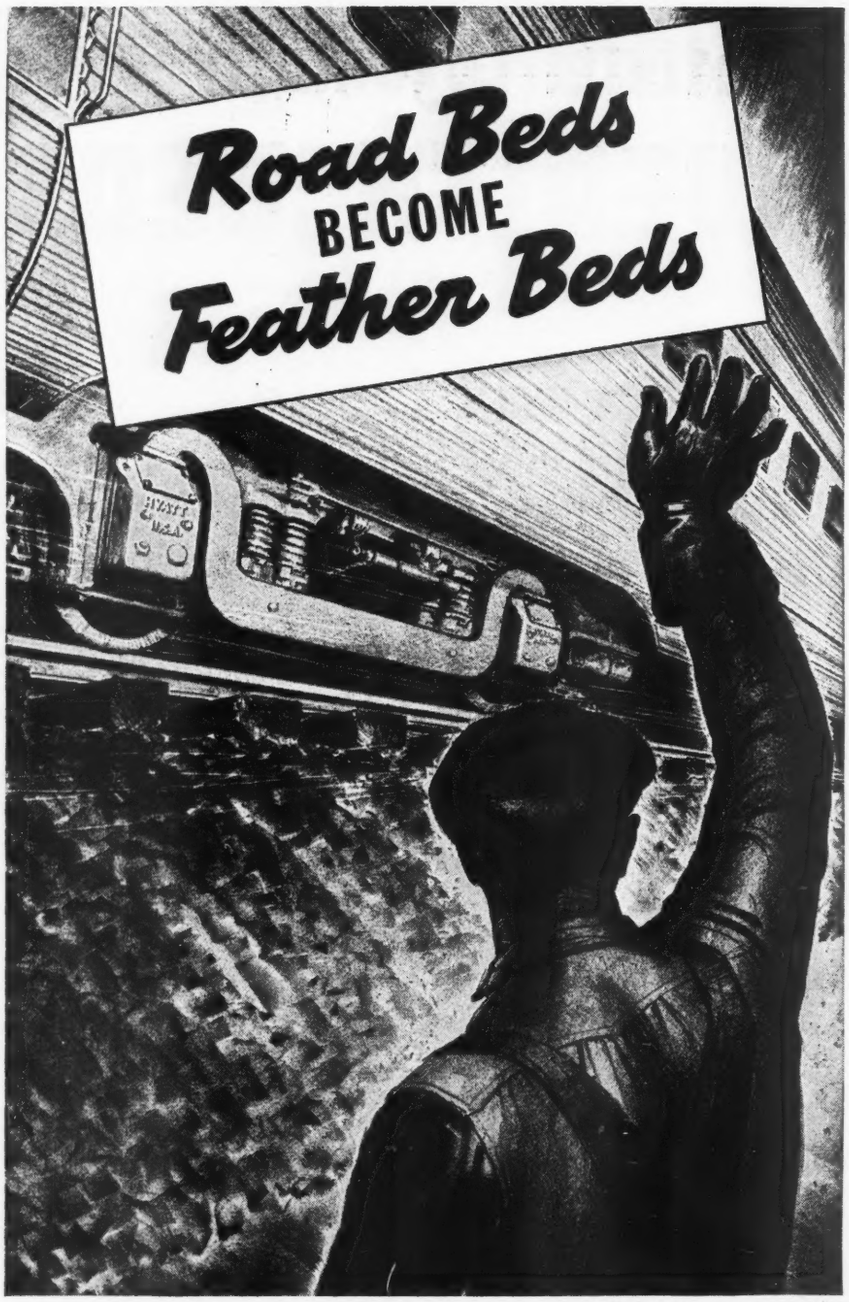


*Lithographed on stone by James E. Allen*

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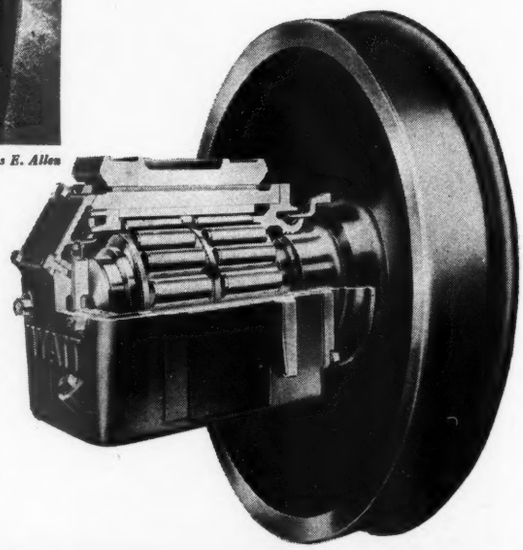

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# Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 108 March 30, 1940 No. 13

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## Five Roads Join in Building Modern Produce Facilities . . . . . 584

An article describing the modern terminal with up-to-date layout and equipment provided for the city of Denver by the Santa Fe, the Burlington, the Rock Island, Colorado & Southern and the Denver & Rio Grande Western.

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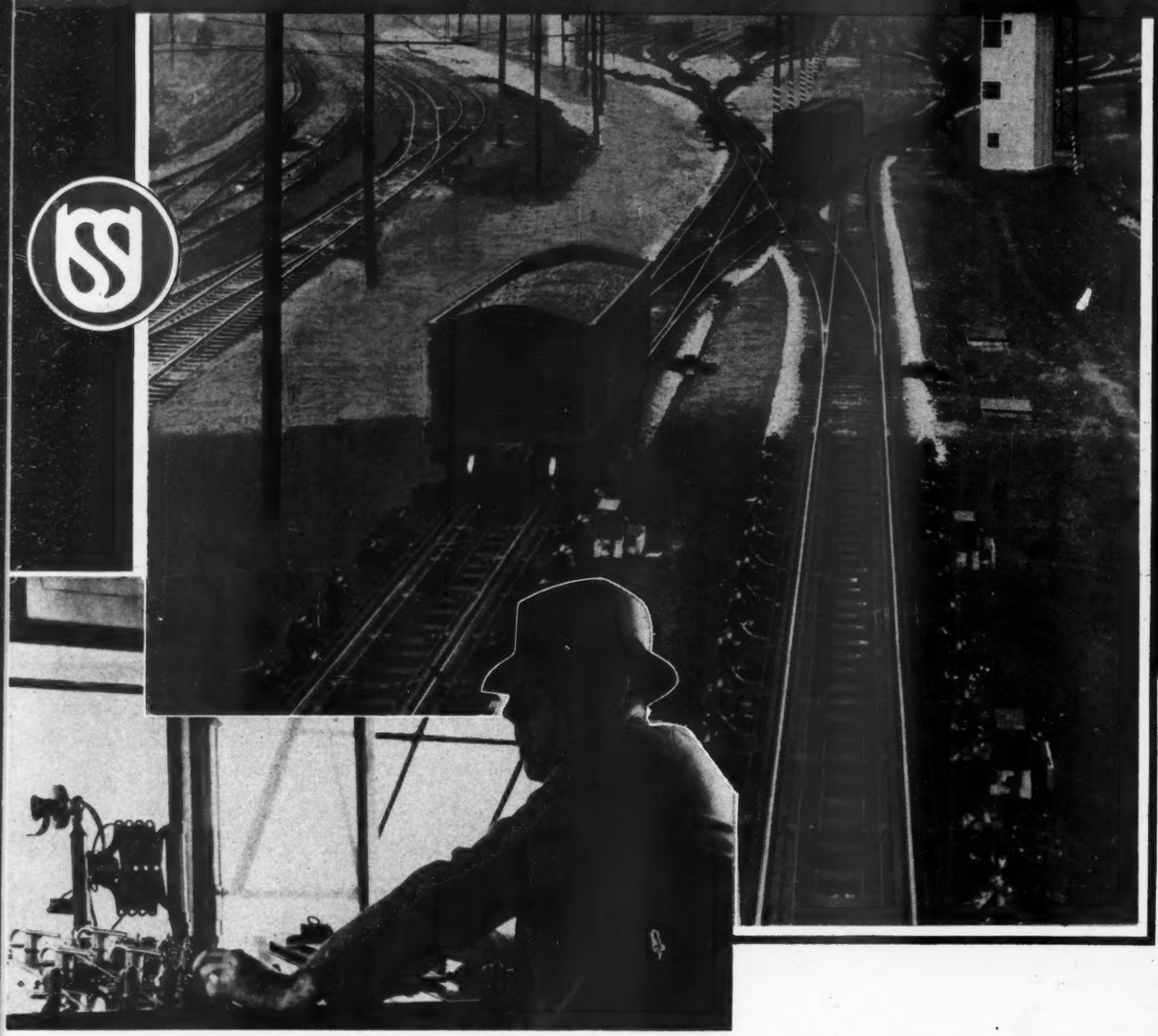

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# The Week at a Glance

**APOLOGIES:** No excuses are offered for the egregious slip-of-the-pen which appeared in this space two weeks ago, reporting loss and damage payments at 56 cents per $1 of freight revenues (instead of per $100). But, your reporter's embarrassment at his hurried carelessness withal, there is some satisfaction at least in thus learning how many alert and generous readers this page has; and in thankfulness that this writer's errors do not involve train movements.

●

**"COMBUSTION" TURBINE:** A specific proposal whereby the recently-developed combustion turbine (using air expanded by heat under compression as the driving force) may be applied to the locomotive, is presented in a paper herein, to the concept of which a number of engineers and manufacturers have contributed. A special type of mechanical transmission is suggested—and a result is envisioned which the developers believe would compare favorably with a Diesel engine.

●

**MORE "ROCKETS":** The new "Rocket" trains which the Rock Island will acquire will operate as follows: Memphis-Amarillo, Kansas City-Colorado Springs, St. Louis-Minneapolis (joint with the Q).

●

**"COMMON CENTS":** Advertising by the Eastern railroads of the new coach fares has stressed the 2-cents-per-mile aspect—contrasting the cheapness of rail travel with its superior comfort and speed. The B. & M. is carrying on a campaign to make the people in its territory two-cents-conscious—by providing all its employees with bronze lapel pins in the form of two connected cents with the slogan on them "In Trains We Trust." Some of these days Macy's or Marshall Fields' or some other big store is going to be looking for a sales manager—and will find him in a railroad passenger department. Maybe then the superstition that railroads don't know how to merchandise their goods will die out.

●

**DENVER PRODUCE PLANT:** The Santa Fe, the Q., the Rock Island, the C. & S. and the Rio Grande joined together in the provision of a modern produce terminal and growers' market at Denver, which is described in an illustrated article in this issue. In addition to facilities for temperature and humidity control, the plant provides display facilities, garages and stalls for the use of local growers.

●

**ORATORY vs. FIGURES:** Carl Snyder, one of the country's leading economists, has written a startling book. The book deals with the conditions which made this country increasingly prosperous each decade from its inception up to 1930 and those which have impoverished it ever since. The startling part of the book is that it doesn't argue—it cites the figures. Has the "efficiency of labor" increased in the past 150 years, or has greater productivity per employee arisen from larger investment per employee? Does union activity improve the earnings of labor at the expense of "capital"? What *single phenomenon* explains the failure of the standard of living of the American people to rise in the 1930-40 decade? This remarkable book answers these questions with figures which are beyond cavil and, as the leading editorial herein suggests, offers a method which ought to be a lot more effective than rhetoric in solving many railroad problems.

●

**MDSE. REPORT:** The A. A. R. Merchandise Committee, which issued a report with 12 recommendations as published in our November 25 issue, has now made public some further suggestions for improved service (and also covering some of the alleged "abuses" found by an I. C. C. committee and reported elsewhere herein). Outstanding among the A. A. R. Committee's recommendations is that Rule 23 forbidding "split deliveries" be eliminated from the classification. The committee believes that the railroads should offer such deliveries and make such changes in their set-up as are necessary to provide it. The railroads, it is suggested, should exercise more direct control over C. and D. operations and avoid duplication of C. and D. coverage by the same railroads in the same areas of large cities. The committee's report is summarized on the news pages herein.

●

**LEGISLATION:** S. 2009 is about ready to go to Congress in final form—the conferees having reached agreement on all of it except the Harrington "labor-protection" joker. Actual report to Congress will not occur until Senator Wheeler gets back from a 10-day trip to the Pacific Coast and conferees are pledged to secrecy meantime. However, rumor has it that the "through-routes" provisions, mitigated somewhat for the protection of originating carriers, are in the bill. Forwarder regulation is believed to be out.

●

**AIR SAFETY:** The air transport lines seem to have gone a whole year without killing a single passenger in a crack-up. Our information is not official, but if it is true as we have no doubt it is, then the record is a remarkable one in view of the inherent hazards of air transportation where mechanical failures which would engender no danger at all on the ground are almost inevitably fatal. There is no use in under-estimating a competitor's strong points, and these lusty air lines are definitely out of the infant class now. How much longer is Uncle Sam going to insist on draping them in the diapers of government subsidy?

●

**RAIL VS. ROAD TRAFFIC:** In December the intercity bus lines grossed 10.7 million dollars, or 12 per cent more than in 1938. In the same month, railroad passenger revenues (exclusive of commutation) were 34.5 millions, or slightly less than in December, 1938. The trucks in February handled 17.5 per cent more tonnage than in February last year, as compared with a railroad carloadings increase of only about 9 per cent. Thus the proportion of total intercity traffic being handled by highway continues to mount.

**"BARRIERS" BALONEY SLICED:** Publicity-hungry professors and the Washington Bureaucrats who are playing stooges in the truck industry's fight for more special privileges have not had things all their own way at the "Barriers" hearing before the T. N. E. C. A New Mexico state official stated that "when the hide is pulled off of the carcass" of the "barriers" ballyhoo, freedom from taxation of out-of-state businesses on a basis of "reciprocity" is what is involved, and he raised a question as to what states would do for revenues if this practice becomes general. A Kentucky official defended that commonwealth's truck weight law and stated that it would cost 130 million dollars of the people's money to make its highways safe for the kind of vehicles some out-of-state truckers wish to put on Kentucky's highways.

●

**APRIL FOOL:** The laugh is on those of us who thought that the I. C. C. meant business when it said that contract truckers' contracts were going to be opened to public inspection on April 1. Such inspection has been postponed "indefinitely" following the protests of such public-spirited groups of citizens as the Contract Carriers Division of the A. T. A., the Kraft Cheese Company, the U. S. Gypsum Company, the Illinois Industrial Traffic League and Roemer Bros. Trucking Co. Wonder what it is in these contracts that it is so important to some people to keep hidden?

●

**SEEING THINGS AT NIGHT:** The ordinarily affable Ted Rodgers, head of the American Trucking Associations, this week turned loose an angry blast at the railroads, accusing them (without the slightest basis of fact, of course) of trying to increase taxes on motorists. He followed this with the misleading claim that "ton-mile truck taxes are 16 times higher than rails" (as if railroad taxes and so-called truck "taxes" were honestly comparable). He then trotted out the old land grant booger to give the railroads a hideous mien and pled for motorists' support of the truckers—claiming that they, no less than the truckers, are the target of a railroad effort to "get automobile and truck taxes so high that highway transportation will become an economic cripple." Sounds jittery and even a little hysterical; unfortunately your observer is unable to report anything sufficiently threatening in the present truck tax situation to account for the Rodgers' jitters.

●

**PUBLIC INTEREST?:** At 300 miles on the movement of sixth class traffic the rail and truck rate is 25 cents—whereas the cost of truck handling is 29 cents and the rail cost 13 cents. But the rail and truck rates are only *apparently* equal, because truck service includes free loading and unloading and free c. and d. and lower minimum quantities than the railroads allow. In view of such rates, calculated to divert traffic from the more economical agency to the less, the "traffic box" on the editorial pages herein asks whether rate regulation is not actively fostering waste in transportation. Is this a function which regulation was established to perform?

# UNIONMELT WELDING . . .

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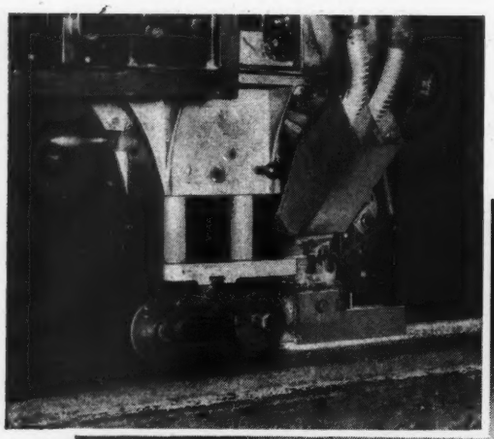

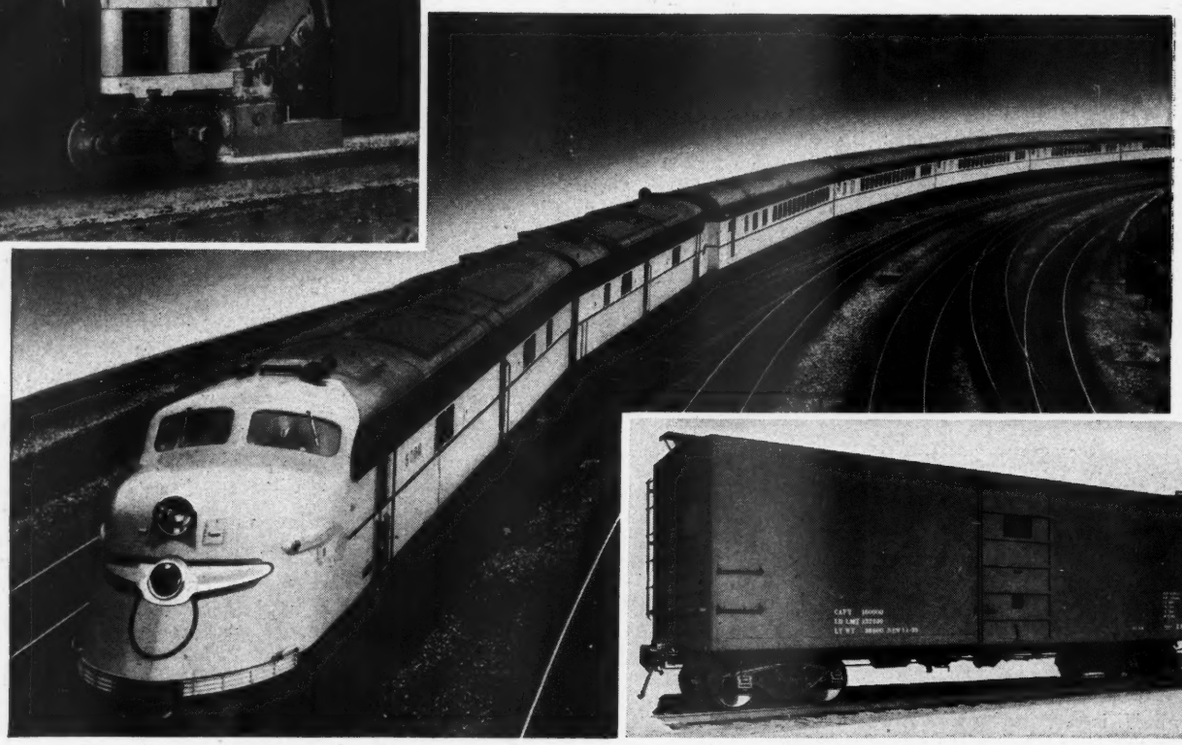

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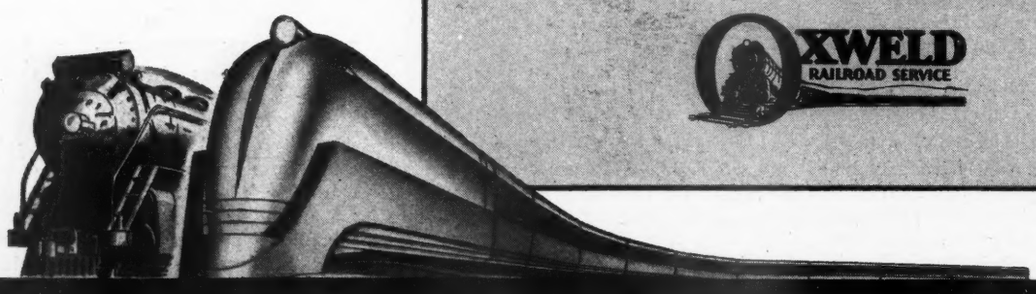

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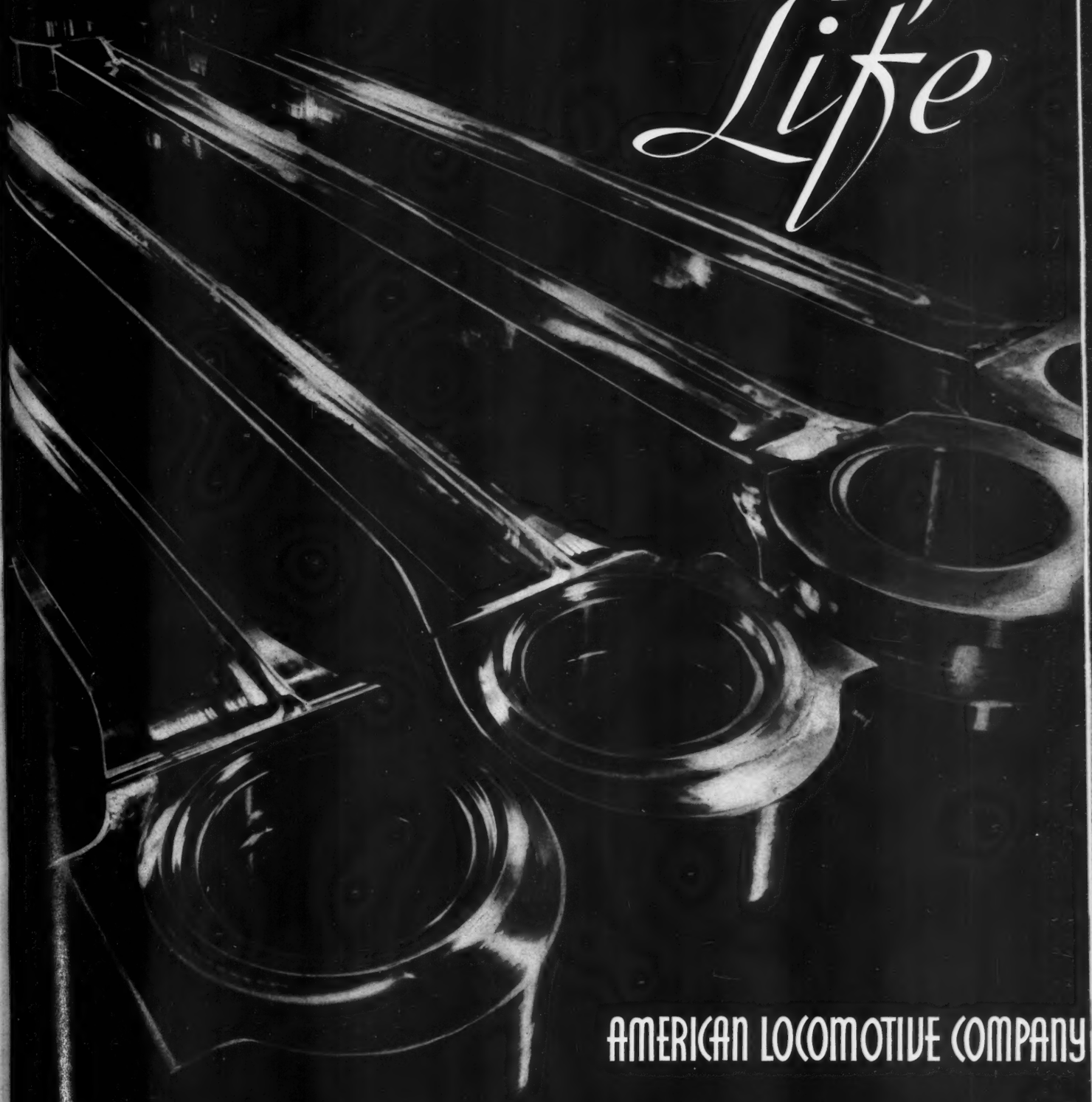

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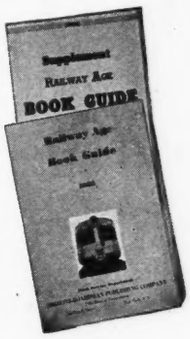


Here is a handy reference booklet on railroad books that are of interest to readers of "Railway Age." In it are described practically all of the books published during the past decade that are in print. They are classified under subject headings and arranged in chronological order. A title index in the back facilitates quick reference.

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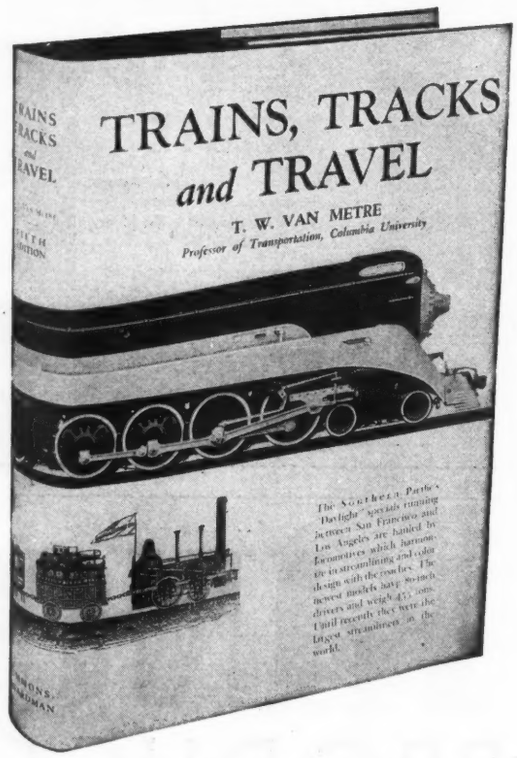


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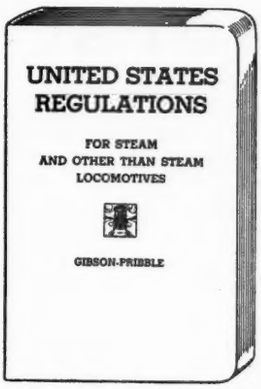


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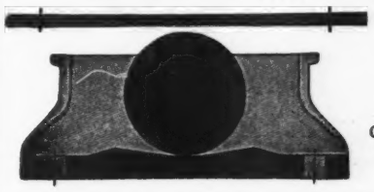

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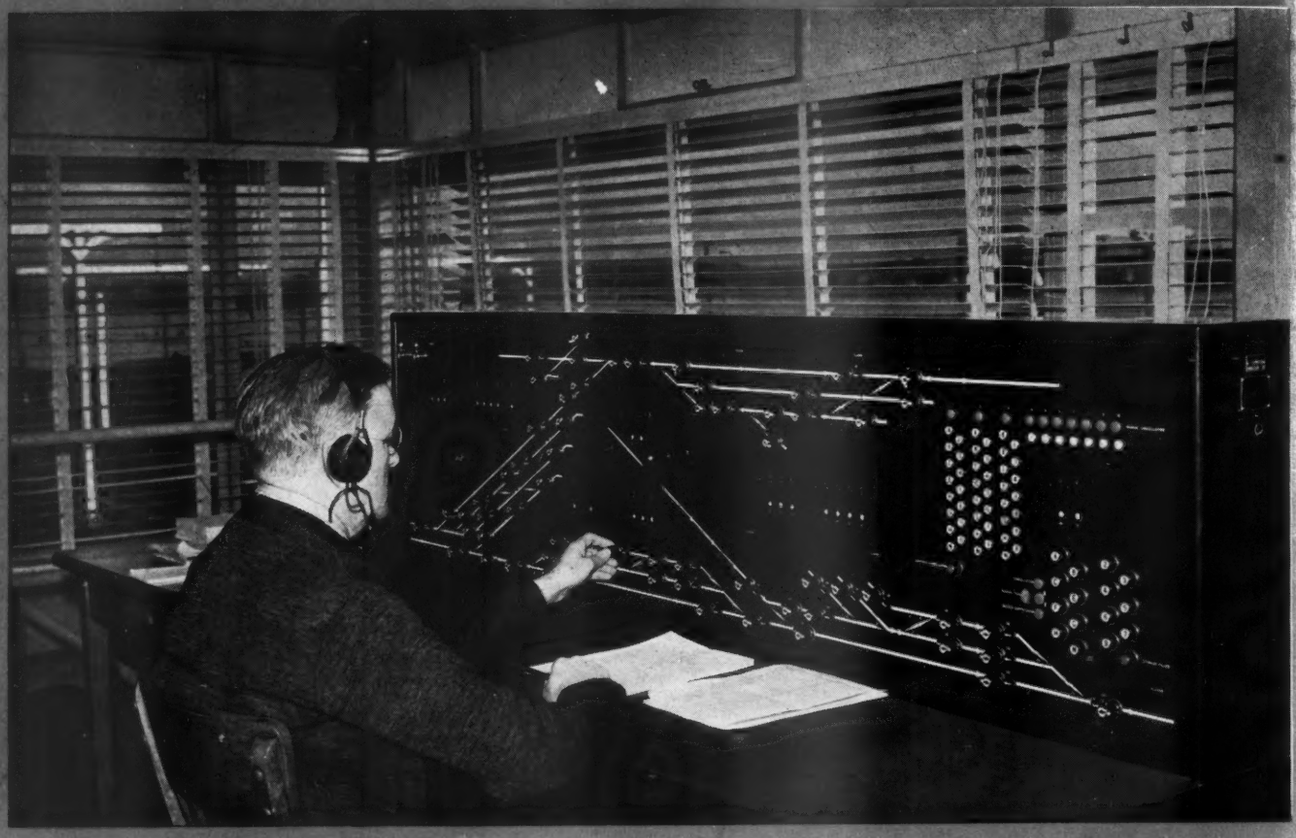

# *NX (eNtrance-eXit) Interlocking*
# SIMPLIFIES TRAIN DIRECTING · · ALSO MAINTENANCE

NX electric interlocking has reduced **train directing** to this simple principle: to line up any route press an ENTRANCE KNOB at the ENTRANCE and an EXIT BUTTON at the EXIT of the route displayed in miniature on a control panel.

NX electric interlocking has simplified **maintenance** in several ways:

1. Its operation depends on relays, which, in their present high state of perfection, require practically no attention.

2. The control panel carries lights, pushbuttons, and switches requiring little maintenance compared to mechanical interlocking.

3. All relays and other equipment, as far as practical, are plug-connected. To replace, unplug the old, plug in the new.

G-R-S engineering services are yours without obligation for estimates and studies.

**For simplicity in train directing and maintenance, consider NX for interlocking modernization.**

GRS

## GENERAL RAILWAY SIGNAL COMPANY

New York Chicago ROCHESTER, N. Y. St. Louis A-1518

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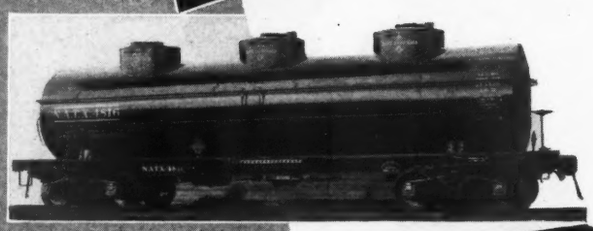
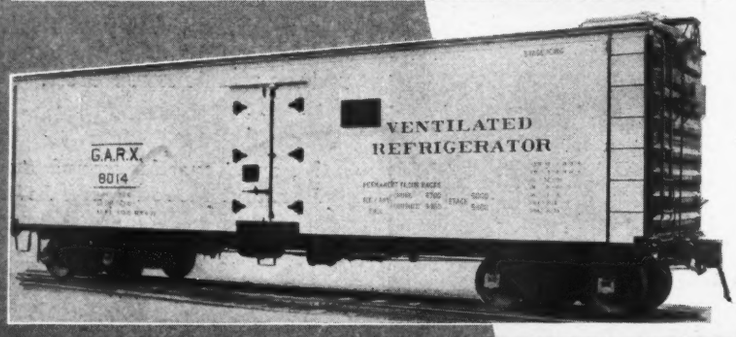
# REDUCE






**Barber Stabilized Trucks are being used under *all types* of Freight Equipment. SAFE for high-speed service.**

**The basic principles behind this truck are RIGHT. It is the ONLY truck that is *initially tight* and always *stays tight.***

**Looseness and wear between bolsters and columns are eliminated. No more broken springs. A smooth riding car under *all conditions* of car load or speed and years of satisfactory service, assured.**

***Representatives***

| | |
|---|---|
| Miller Lewis Railroad Equipment Co. | New York, N. Y. |
| Geo. H. Goodell | St. Paul, Minn. |
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# STANDARD CAR TRUCK C